

PACIFIC PULP & PAPER INDUSTRY

NOVEMBER
1932



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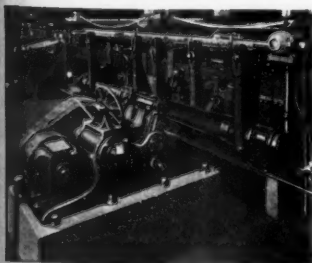
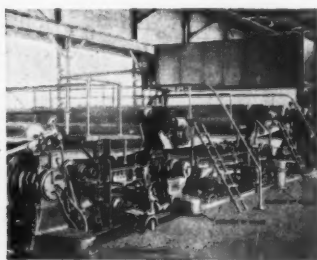
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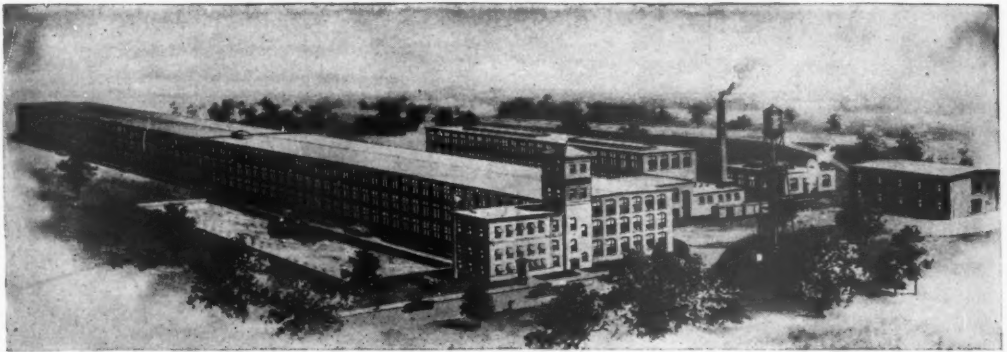
At Right—Beloit Suction Rolls



Above—Beloit High-Speed Super-Shake

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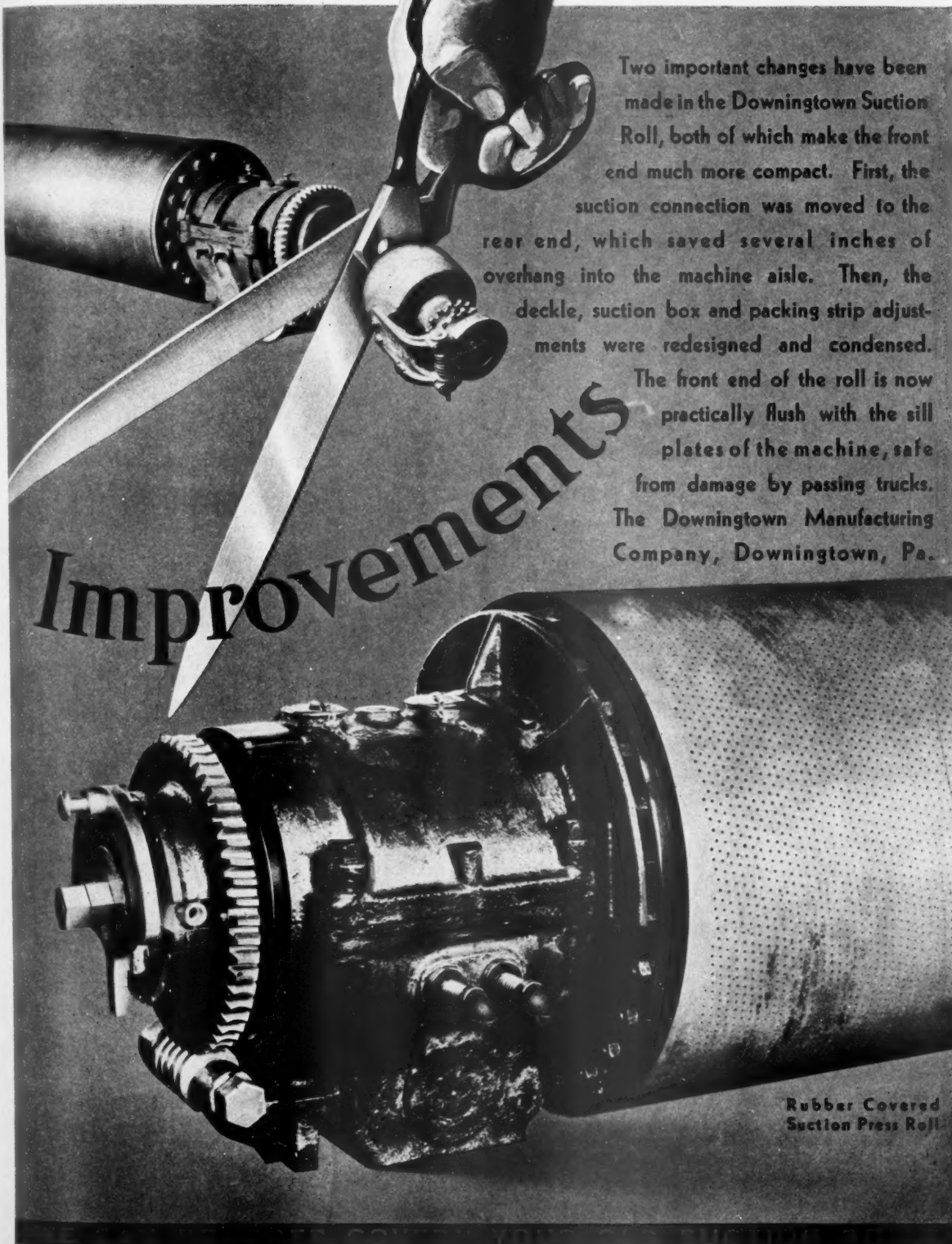
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Pacific PULP and PAPER Industry

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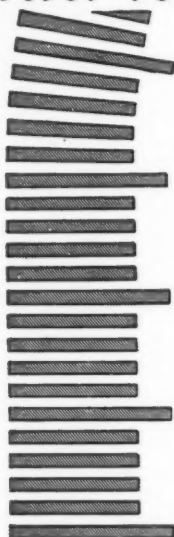
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XII Points Rise

in photometer reading with zinc hydrosulphite



U. S. Patent
No. 1,873,924
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No. 307,440



One of the outstanding advantages of zinc hydrosulphite for bleaching ground-wood is its remarkable brightening effect, even on pulp darkened by oxidation or bacterial action. In tests conducted at various Pacific Coast mills, where zinc hydrosulphite is already standard treatment, the new method has produced a rise of as much as 12 points on the Ives Tint Photometer scale with an application varying between 0.5% and 1.5% of the weight of the pulp, when applied to pulp darkened during storage.

The color of fresh Western Hemlock groundwood has been raised as much as 3 points by an application of from 0.2% to 0.5% hydrosulphite; and an application of from 1% to 1½% will raise the photometer reading 5 to 6 points. Naturally the quantity of hydrosulphite required will vary with the degree of brightening to be secured, but only rarely has an application of more than 2% been necessary, and in some cases it has been as low as 0.1%.

In addition to its high bleaching effectiveness, the zinc hydrosulphite treatment has other advantages. Due to the very small quantities required, no special equipment is necessary for application; it may be applied either directly into beaters or mixers, into conveying pipes in a continuous system, or close to the paper machine. It works with such great rapidity that *only a few minutes* is required for treatment, compared to day-long retention periods required by older methods. Heating costs are eliminated, because the treatment works at ordinary temperatures. Since the hydrosulphite has only a slight effect on the pH value of the pulp, corrosion is avoided.

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Problems are made to be solved

FRANKLY ENCOURAGING is the evidence of a growing disposition to adjust differences of opinion within the industry. The controversy that has developed factions divided on the question of domestic production of pulp and paper *versus* imported pulp and paper begins to appear to have some common denominator for discussion.

Of course, some holdouts are always present, the non-convertibles who refuse to the last extremity to yield minor personal advantage to major objectives. These are no phenomena peculiar to the pulp and paper industry. They are, however, entirely secondary to that wider gauge of thought which gives some consideration to both sides of any question.

It is most significant that within recent months many competent executives of converting mills have begun to express some concern over the welfare of the domestic pulp producer. Seldom are these sentiments voiced other than privately, but the lack of publicity is no measure of the degree of concern that moves.

Stated otherwise, there appears to be forming among the pulp-buying group a school of thought, nebulous and indistinct and localized as yet, that the maintenance of a healthy domestic pulp industry in last analysis is simply a guarantee of protection for the converting mills and the public welfare.

On the other hand there is also evidence on the part of domestic pulp producers to meet with the converting mills—the pulp-buying group—and to arrive at more amiable understanding. Certainly between the two armed camps there is a parley ground which both could occupy at the same time.

Difficult as the problem may be, it is futile to dismiss it as impossible of solution without due consideration. No doubt it can be assumed that a substantial majority prefers to do business with a domestic industry. However, a dependence on foreign supplies has been built up over the years, a dependence that has more recently been made unnecessary by the march of time and the introduction of new factors. This dependence has built up a certain fixation that may develop rather severe shocks unless readjustment is handled with some care. Granted that readjustment is desirable, then obstructionist tactics are to be condemned alike with any extremist efforts to force the issue from the other side.

Competition in the domestic market with goods produced in foreign lands under the benefit of depreciated exchange has brought the difficulties of the wood pulp industry into sharper focus. The problem of the domestic pulp producer is most acute, and this is readily

granted privately by a surprisingly large number of prominent converting mill men. The issue long ago was raised beyond the sphere of sectionalism. It has developed beyond being a national problem of the pulp industry. It has become a national problem of all United States industry as is well evidenced in the frequent references to the subject recently in the writings of financial reporters and economists and in the speeches of the political campaign just closed.

The problem of depreciated exchange imposes a new problem of unparalleled aspect, requiring solution of unparalleled measure. It imposes the necessity of temporary emergency action to hold off the deluge of a disastrous permanent effect, particularly within the pulp and paper industry. It requires some patriotic forbearance on the part of those who may be in a position to reap a fleeting pecuniary benefit from it.

Among the factors which are building up that common denominator for discussion of pulp and paper industry differences of opinion are: the establishment of new mutual relationships between converting mills and pulp-producing mills occasioned by regional shifts within the industry; the direct demoralization of paper markets in the United States by a new import tide of tariff-protected grades of paper. This latter factor has quite recently developed a very decided community of interest.

There is the further factor handed on by the widespread depression which tends to build up, when jobs are scarce, a strong sentiment toward preserving all available jobs for those at home. That is only a natural desire because when it becomes necessary to give out money for any form of charity the donors like to see where their contributions are applied. All this ties in very directly with a sense of nationalism which is being built up from two directions as foreign goods come into this country and our own produce is excluded from foreign markets by appreciation of the American dollar and the rise of tariff barriers in other lands which have nationalistic tendencies of their own.

Finally, with these many new elements, political and economic, which argue the advisability of a greater degree of pulp and paper self-sufficiency in these United States, with resources available which are suffering unnecessary waste through incomplete utilization due to market restrictions, and with unemployment facing us as a chronic rather than a temporary condition, it seems inconceivable that in its magnitude the pulp and paper industry is unable to drop bickering on details until it can settle the more fundamental problem of mutual interest.

DEPRECIATED EXCHANGE and UNEMPLOYMENT

By CHARLES E. DANT

Dant & Russell, Inc., Portland, Oregon

UNEMPLOYMENT is a subject which gets right down to cases with every person in the land in times such as these. The strenuous efforts put forth to effect relief in local areas are commendable in spirit, but they are too often futile and misdirected and amount to no more than pouring sand down a rat hole without concerted effort to cure the ills, the causes of unemployment, at the source.

Unemployment relief resolves itself into the simple equation of finding jobs for men. Where are these jobs to be had? It takes men to extract the raw materials of our lands, our mines, our forests; it takes men to transport these materials to the place of fabrication; it takes men to convert these raw materials into the thousandfold consumable items entering into the daily life of our citizenry.

It follows then that if we are to have jobs to distribute we must preserve for our citizens the opportunities for employment to be found in providing the demands of the people for goods. Ours is a complex civilization, an amazingly intricate interdependence of occupations. Prosperity, or, in other words, a condition of little or no unemployment, depends upon the functioning of this interdependent social and economic fabric of ours.

The real cure for the depression lies in the direction of protecting our domestic industries against the advantages that foreign countries enjoy in competition with our own industries. Price levels determine industrial activity. We have left our price levels open to wholesale undercutting by nations which, by reason of depreciated currencies, or low wage levels, or both, have a tremendous advantage against which we can not hope to compete on even terms.

Depreciated foreign currencies have raised havoc with the industrial structure of these United States. We have been shut out of foreign markets. Imports are rapidly absorbing the domestic market. Our major industries have closed down, or they continue to operate at slow bell, merely to prevent further contribution to the ranks of the unemployed. Our tariff wall, designed to effect an equalization between the high living standards of the United States and the lower living standards of other nations, our tariff wall is no longer a wall, but a disintegrating shambles over which the tide of foreign imports swells in increasingly menacing volume.

Prompt and effective action is necessary to save many great national industries from utter ruin. We face an unprecedented condition, requiring unprecedented action. Otherwise foreign manufacturers will "suck the life blood" from our domestic industries and leave only a pallid corpse which cannot provide jobs.

Our newspapers have been filled with foreign propaganda about our high tariffs. Unwittingly, the man without a job, and the man who may be without a job tomorrow, absorbs this poisonous inoculation without realizing that there is being brought about in this country a condition that will not be corrected without reducing our present enviable high standards of living.

We need to develop a vigorous policy against dumping foreign goods in this country. At present we have anti-dumping measures, enacted in 1921, but experience has shown that the law is cumbersome and that it takes the Tariff Commission 18 months to act. That is too slow, much too slow. We cannot lock the barn until the horses have gone. Canada, on the other hand, by Order-in-Council, can issue an anti-dumping provision in forty-eight hours.

As matters stand under circumstances of world-wide depreciation of currencies from the gold standard, we are not a high tariff country, but virtually a free trade country. Our industrial structure, our ability to employ the people has been built up through a policy of tariff for protection, a policy of recognizing the different standards of living obtaining between the United States and other countries, and we cannot at once let down on that long-time policy of protection without stark chaos. We cannot overlook the fundamental fact that if we are going to import a large and increasing portion of our every day needs that unemployment is going to increase rather than decrease.

The quickest way out of the depression is to protect our home markets for our home products and our home labor.

We do not have to leave our Pacific Northwest to search for examples of the destructive effects of depreciated currency competition. The developing wood pulp industry of Washington and Oregon, soundly based on advantageous natural resources, is prostrate. Our Pacific Coast producers cannot hope to survive in a market, a domestic market be it remembered, against foreign competition which has a 30% to 50% advantage. Statistics bear out this point only too well, showing that despite a falling off in domestic production of paper, the ratio of foreign pulp entering into domestic paper production has been increasing during the year since the general abandonment of the gold standard.

Our basically important commercial fisheries of the West Coast stare ruin in the face. Here the tide of cheap imports has just begun, but the outlook of potential destruction is exceedingly black.

Many other industries can be named which have already suffered directly. These industries are by now quite thoroughly aroused. There is, however, slower perception of the danger in those industries which are injured more slowly or less directly. The ultimate effect upon them is no less because every injury wrought upon any important American industry serves only to reduce the ranks of active consumers and to further undermine the enviable higher standards of living we have so patiently built up over the years.

To argue the urgency of equalizing competition with depreciated currency countries is not to argue something abstract. It is not to argue alone the preservation of an industry, or many industries, something inanimate. Rather, it is to argue whether, in times of stress, we shall give bread to our own folk or to some unknown across the sea. It is a question of jobs.

Japanese News Print Invades California Market

"The output of the news print of this company (Karafuto Kogyo—mentioned in your Sept. issue) is not so great as other two leading paper companies, viz. Oji and Fuji Paper Co. The total production for the same in this term, only amounted to 35,000,000 lbs., then if the raise of the price be realized, the profit is not so large as the other companies but the effects of the increasing of output due to the decrease of importation is very large. The sale of newsprint of this company is very favourable recently, the stock for the same will soon be out and for the meeting of their increase of

demands, they will commence the operation of 142" high speed machines in Esutori Mill that was stopped since April last year. If this machine be operated, the profit for the same will be amount to 5 to 600,000 yen per year.

"Next, by the slump of yen exchange, we can expect the activities in paper exportation of this company. The exportation to China is now in a state of standstill but they endeavours to open the new markets along the pacific coast and much promising future is expected for that regions. In October, last year, they sent Mr. K. Iwashita, the sales man

of the company and Mr. N. Yoshida, the chief of the export department of Daido Paper company, the sole agent of the Karafuto Kogyo Co. and investigate the exportation to that country. According to their inspection, it was payable but the present state of exchange further profit will be obtainable and recently, they shipped out about 100 tons of newsprint to that country and it is reported they offered a large offer. Of the 90% of the total consumption of the news print in the United States is imported ones and naturally requires no import tariff and therefore, the exportation to that country is comparative easy."

The above two paragraphs are quoted verbatim from "The Informations on Cellulose Industry of Japan", issued by the Japanese Cellulose Industry Reporters, Ltd., No. 3 Kamifujimai-cho, Komagone, Hongo-ku, Tokyo, Japan. Japanese news print is reported selling for \$32 per ton, delivered in warehouse, at San Francisco. Swedish news is reported offered at \$34. Pacific Coast news is \$50.

PROTECTION FOR PULP

—aroused another contest in October. Mills in Washington and Oregon drew a petition praying relief from foreign competition and E. M. Mills, president of Washington Pulp & Paper Corporation, Port Angeles, Washington, presented the document to President Hoover on behalf of the Western industry.

Immediately the group of Eastern mills supporting the Temporary Committee Opposing Tariff on Wood Pulp breathed new life into that dormant body. H. P. Christian, committee chairman, and general purchasing agent of Robert Gair Company, New York, wrote a lengthy letter to the President stoutly opposing petition of Western mills.

High points of both sides: For the pulp industry—without relief pulp industry will perish. For the converting paper mills—with protected pulp converting mills will perish.

DEPRECIATED EXCHANGES

—and their effect upon industries of the gold-standard United States were discussed by Ralph Shaffer, president of the Shaffer Box Co., Tacoma, Washington, at the Fall meeting of the Pacific Section of TAPPI at Seattle on October 22.

"It seems unnecessary to bore you with a great lot of data," Mr. Shaffer remarked in opening, "since you have doubtless read the October issue of the PACIFIC PULP AND PAPER INDUSTRY and through their remarkably clear expositions therein have absorbed all the figures that are necessary."

Mr. Shaffer reviewed the much-discussed report of Col. F. E. X. Eble, Collector of Customs, to President Hoover which revealed the tremendous increase in protests from American manufacturers against foreign dumping and the significance of the increased ratio of imports.

The speaker made a brief historical sketch of the efforts that have been made to date to secure federal relief from the growing press of imports which is adding to the unemployment problem, pointing out that "a great work has been done, and is being done, by the Twelfth Federal Reserve District Committee on Foreign Exchange under Miller Freeman, publisher of PACIFIC PULP AND PAPER INDUSTRY, as Chairman." He then went on to explain that this committee had been expanded into a National Committee, with Mr. Freeman continuing as chairman of the larger

body, and with Robert Lamont, former Secretary of Commerce, and Henry Derby, president of the National Association of Manufacturers also serving as committeemen.

Although Mr. Shaffer pointed out specific injuries in the case of the pulp industry, he dealt mainly with United States industry as a whole, and showed how the competitive effects of depreciated exchange were reaching all industry directly or indirectly by slowing down employment and diverting orders for goods to factories manned in foreign lands by foreign workmen.

THE OUTLOOK

—in the industry is still very uncertain. Domestic pulp producers are steadily being driven to the wall as disproportionately heavy imports of pulp continue to flow into the United States market despite a reduced consumption of paper.

Production is evidently running ahead of orders with the foreign mills and informed sources state that foreign pulp stocks are piling up both here and abroad.

The news print debacle in Canada and the attendant price chaos has injected a new element of uncertainty into the industry at large with the result that marginal news print producers are being forced into other grades.

Paper production offers no very encouraging prospect of greater activity. There has been much holding off pending the outcome of the election, but it remains to be seen how much of this holding off was fact and how much was theory.

There are, however, some very distinctly encouraging signs. One is that depreciated exchange has permitted several grades of foreign made paper, hitherto well protected by tariff, to get into the United States market and upset already low price levels. This has served to make depreciated exchange a matter of concern by some organizations which have been hitherto indifferent to the damage being done to domestic pulp producers.

Contact with a number of leading converting mill executives reveals a changing attitude on the part of many and a greater disposition to safeguard the domestic pulp supply and not let it shift for itself to threatened extinction. The lines which have hitherto so sharply divided the industry into two camps—"free" pulp and "protected" pulp—are apparently beginning to melt and there may result some beneficial compromise of differences.

T · A · P · P · I

Pacific Section, at Annual Meeting, plans greater activities for 1933

DEPRESSION, politics and other current subjects of the season were sent up a sidetrack on September 21 and 22 while the pulp and paper men of the Pacific Coast got down to the argument of things closer to home. The occasion was the annual Fall meeting of the Pacific Section of TAPPI, held at the New Washington hotel, Seattle.

Chairman Ralph Hansen handled the chair for the two-day session. It was a well arranged program, balanced as to subject material and with due respect paid to the social side. If there was anything to dampen the occasion it was the blast of fury released by Father Neptune in the form of the season's worst rainstorm, precipitated just as the members of TAPPI and 40,000 other persons came out of the University of Washington stadium at the close of the grid battle between Washington and California. That was a soaker.

Chairman Hansen, who is technical director of the Weyerhaeuser Timber Company, Pulp Division, was swept back into office for another year by unanimous vote. Ray Schadt, in charge of technical control at the Hawley Pulp & Paper Company, was reelected vice chairman, and A. S. Quinn, Pacific Coast representative of the Stebbins Engineering Company, was elected secretary-treasurer, succeeding E. G. Drew.

Convention details were in charge of Mr. Quinn, and it was because of further demand for his efficient and active services that he was drafted into permanent office for 1932-1933.

The scheme of regional vice-chairmen, initiated a year ago at the Powell River meeting, was discarded at the Seattle session. Another plan of appointive committeemen is to be substituted, so as to provide geographical distribution of effort and to make the work of TAPPI as representative and intensive as possible.

The business session on Saturday also brought out an excellent suggestion on pulp standardization, adding to which J. P. V. Fagan, assistant superintendent of the Puget Sound Pulp & Timber Company, suggested the coordination of work on tests on the part of the younger laboratory chemists.

Lawrence Killam, president of the B. C. Pulp & Paper Co. Ltd., suggested the Section take up the question of getting more "approved chemists" as a valuable commercial aid for the Western mills.

The question of finances again came up for discussion and it developed that the Section feels handicapped in putting on conventions adequate with objectives when limited to the 10% rebate allowed by the national office for the regional group. A Committee on Finance was appointed to go over this pressing problem most thoroughly.

Somewhat akin to the question of finances is the determination of the Section to push a drive for greater membership, to include, particularly in the affiliate

group, a greater representation of men engaged in the various occupational groups within the industry.

Chairman Hansen opened the meeting on Friday morning with a word of welcome and then read a message from national President Allen Abrams, in which the national officer reviewed the organization of TAPPI and reminded that the Pacific Section was the first regional group to be organized.

The program of papers presented was as follows:

Action of Ammonium Sulphite on Wood (Abies Grandis)—W. S. Hefner and E. C. Jahn, School of Forestry, University of Idaho.

Acid Penetration in Sulphite Pulping—Svarre Hazelquist, Chemist, Weyerhaeuser Timber Company, Pulp Division.

Utilization of Waste Sulphite Liquor—Dr. H. K. Benson, Dean of College of Chemistry and Chemical Engineering, University of Washington.

Variations in Cooking Kraft Pulp—Ralph Reid, Chemist, St. Helens Pulp & Paper Company.

Bleaching of Groundwood—Dr. W. Hirschkind, Vice-President in Charge of Research, Great Western Electro-Chemical Co.

Permanency of Records—Dr. H. K. Benson, Member of National Research Council.

Static Electricity in Paper—Myron W. Black, Chief Chemist, Inland Empire Paper Company.

General Economic Outlook for the Pulp Industry—R. B. Wolf, Manager, Pulp Division, Weyerhaeuser Timber Company.

The Effect of Depreciated Exchanges—Ralph Shaffer, President, Shaffer Box Co.

The Question Box was opened on several occasions, following the different sessions, and this feature of the program brought out some extemporaneous debate. On the question of pulp color the photo-electric cell was forecast by Dr. W. Hirschkind of the Great Western Electro-Chemical Co. as a promising hope for future accurate calibration on pulp brightness. There followed some discussion back and forth on the human equation in pulp testing and someone raised the question of "pulp mill tests versus paper mill alibis."

H. A. Des Marais, Pacific Coast representative for the General Dyestuff Corporation, spoke on the importance of color in influencing the sales of finished product and made his points interesting by bringing in some experiences with the colors used a few years ago, pointing out how the general science of dyes had been advanced.

The Saturday morning session went in heavily for economics. The opening paper, "General Economic Outlook for the Pulp Industry", by R. B. Wolf, manager, Weyerhaeuser Timber Co., Pulp Division, drew much interest and offered a constructive way out for



R. J. SCHADT
Vice-Chairman



RALPH B. HANSEN
Chairman



A. S. QUINN
Secretary-Treasurer

The new officers of the Pacific Section of TAPPI

further development of the Pacific Coast pulping resources by concentrated effort on the factor of quality.

The present plight of the pulp industry was brought forcibly home by Ralph Shaffer, president of the Shaffer Box Co., in his discussion on "The Effect of Depreciated Exchanges". In this Mr. Shaffer reviewed the work that had been done to correct the inequality, pointed out the initiation of the movement on the Pacific Coast and the active participation of Pacific Coast industry, and made the case rather plain that it was a subject on which depended the continuation of jobs.

The social side of the convention was not overlooked. Scheduled speakers and formal programs were taboo. The Friday luncheon was held at small tables with no chairman presiding. The arrangement permitted a splendid opportunity for discussions in groups.

The crowning event on the social side was the informal dinner dance on Friday evening. This year the ladies were present in greater numbers than ever and the many favorable comments on this part of the program seem to indicate positively that the dinner dance feature will become a permanent part of Pacific Section TAPPI meetings.

The convention closed at noon Saturday and most of those present went out to see the University of Washington football team take a 7-6 beating at the hands of the University of California. The weather held up fairly well during the game, after a threatening morning, but immediately the game was over, the torrents let loose in all fury.

The wind-up of the social activities was the concluding dinner on Saturday evening at which a varied bill of entertainment was offered.

Apparently depressions cannot down the Pacific Section of TAPPI. One thing much in evidence at the Seattle meeting was the growing acquaintanceship of the men in the Coast industry, and a widening degree of cooperation and eagerness to talk shop.

The time and the place of the Spring meeting were not fixed, but left to the discretion of the executive committee. Some interesting plans for broader activity for the next session are already moving forward.

SEATTLE NOTES

... C. B. Everitt left his bass voice home ... Myron Black always present ... Dr. Benson exploring values in waste ... Tom Moffitt from Hooker where they make chlorine ... R. B. Wolf urging an interest in fundamental economics ... A. S. Quinn, convention chairman, busiest man ... D. K. McBain from Weyerhaeuser, mill hydraulics ... Tom Bannon, gear ratios ... H. A. Des Marais, dyestuffs and tenor voices ... A. C. Zimmerman discussing broke beaters ... enough Woods to make a Forest, A. D. and Ed. ... Jim Brinkley talking chipping plants ... Gerald Alcorn from Weyerhaeuser's lab ... Lawrence Killam, B. C. Pulp's president ... Eric Ekholm from Bellingham, Swedish dances ... not to forget Mrs. N. O. Galteland ... J. V. B. Cox, chemicals for paper makers ... and Fred Shaneman, more chemicals ... tall Norman Kelly with long legs to get around a big mill ... three musketeers with false whiskers, Ken Hall, Ken Shibley, and Earl Thompson ... Prof. Bueschlein ducking classes ... Ralph Reid talking about kraft ... H. W. Beecher, steam ... James P. V. Fagan, there with his three initials ... E. H. Barton from Longview ... E. C. Jahn from Idaho ... Ray "Whiskers" Smythe ... B. W. Sawyer, instruments ... Stan Selden from Tacoma ... table talk at lunch time ... can't run a convention without finances ... Svarre Hazelquist, getting ahead of us on chemistry ... Brian Shera controlling microscopic organisms ... J. E. Hassler on how to whittle wood ... message from the national office ... football game and a bit of rain ... C. W. Morden and the stockmaker ... everybody gay at the dinner dance ... Doc Hirschkind, telling how to make dark news print light ... lobby discussions ... have you met so-and-so ... high free and low free ... reduced power consumption ... better chips ... prices ... short week ... quality ... next meeting ...

BLEACHING of GROUNDWOOD

By W. HIRSCHKIND

Great Western Electro-Chemical Co.

THE TREATMENT of groundwood or mechanical pulp to improve its color, is a problem which has occupied the attention of many investigators. Since groundwood contains all of the constituents of the wood, a bleaching process applicable to this material must differ essentially from the bleaching of chemical pulp. Chlorine, hypochlorites or other oxidizing agents such as are used in bleaching pulp are out of question since they would necessarily have to remove about 50% of the constituents of the groundwood before any improvement of the color could be obtained. While bleaching of chemical pulp consists principally in the elimination of lignin and other non-cellulose materials, bleaching of groundwood must respond to the widely variable conditions causing its color. These are:

1—Natural Color of the Wood. It is a well known fact that various woods differ widely in color. Eastern Spruce is brighter than Western Spruce. Of western woods, Cottonwood perhaps is the brightest followed by Spruce and then by the most common of western woods: Hemlock. Groundwood made from Western Hemlock is usually slightly yellow, incorporating in western newsprint a gray or yellow shade not present in eastern newsprint.

2—Changes of Wood Due to Atmospheric Conditions. On exposure to weather wood darkens and gradually disintegrates. This is due to sunlight, oxygen, temperature and moisture. Certain species turn gray and acquire a silky luster. The brown color is due to the transformation of the cell membranes into humus. Stains of various colors are occasionally produced by changes in the wood due to atmospheric conditions. Naturally wood discolored in such a manner gives a dark or discolored groundwood.

3—Iron Content of Wood. The iron content of groundwood may change materially due partly to the iron content of the wood itself, due partly to the iron pick-up during the process of grinding. The tannin contained in the wood will react with iron, forming iron tannates, usually of grayish color.

4—Bacterial Decomposition of Wood. Bacteria and fungi attack either the wood or the groundwood during storage, causing grayish, brownish or even deep black discolorization. The action can be further accelerated by the simultaneous presence of iron and sulphur. A certain organism belonging to the group of sulphur bacteria reduces sulphur containing compounds with production of hydrogen sulphide which in turn unites with iron to form black iron sulphide.

5—Effect of Higher Temperatures on Wood. High temperatures usually cause a brown discoloration as it is often noted when the temperature during the grinding operation rises too high.

There are means available which remedy the discoloration due to one or the other causes. For instance, oxalic acid is an effective means to combat discoloration due to iron and iron tannates. A decrease in the pH due to acids or acidic materials usually brightens the natural color of the wood. Alum for instance has such an effect. There are, however, very few materials which lend themselves to treatment of the various forms of discoloration.

The only known method by which the color of groundwood, due to a number of causes, can be improved consists in a treatment with reducing sulphur compounds such as sulphur dioxide, sulphurous acid solution and sodium and calcium bisulphite solution. This is not a bleaching process in the ordinary sense as the coloring matter is not destroyed but masked temporarily and on exposure to air a slow reoxidation takes place by which the stock reverts gradually and takes on a grayish appearance.

The method is at present carried out in two ways: The fibre is treated with a 2 to 3% solution of calcium or sodium bisulphite in quantities to 2½% of the weight of the dry fibre as bisulphite. The fibre is allowed to stand for some time in this solution, after which the excess is removed by a washing process.

The second method is to spray the fibre as it is taken from the wet machines with bisulphite solution in similar quantities as above and allow the brightening to take place in the moist laps.

For the successful working of this process Bragg¹ states that the following points must be observed; close regulation of moisture on the wet machine or in the engine; use of good, sound wood only, from spruce, balsam or poplar; carefully controlled grinding conditions; use of sodium bisulphite of definite and constant strength; temperature maintained at 40° to 60°C. during application; frequent testing of bleached pulp from the wet machine for acid residues, indicating that the bleaching solution should be reduced; and careful protection of all iron work with a good acid-resistant paint.

For most applications the process is too cumbersome for the following reasons:

1—The quantities of sulphur dioxide or its compounds used, run up to several percent of the weight of the pulp which necessitates the removal of the reaction products by washing.

2—The materials are all acid in character, thereby effecting the pH of the pulp and causing corrosion of metal equipment.

3—An elevated temperature is necessary to get the maximum results besides a considerable retention period which sometimes amounts to 24 hours.

In an endeavor to secure bleaching reagents more effective than bisulphites and free from the obvious

¹A. O. Bragg, Bleached groundwood. Paper 30, no. 8:6-10 (Apr. 26, 1922).

The chemist explores his test-tube, the engineer pores over his drafting table, in the never-ending search for improved quality. Dr. Hirschkind explains in this discussion an interesting development worked out in the pulp and paper industry of the Pacific Coast which has materially raised the possibilities in groundwood papers.

disadvantages of these compounds it is evident that the principle of the method cannot be changed and that reducing agents are the only possible solution. There exists one type of reducing agent which has been used in the past to some extent for stripping of fabrics for removal of dyes.

They are the so-called hydrosulphites (the correct chemical name is hyposulphites) of the composition $\text{R}\cdot\text{SO}_3$ (R equals a monovalent metal) but of an asymmetric constitution, which are formed by reduction of sulphur dioxide or bisulphites. They far exceed the latter compounds in both reducing power and rapidity of reaction. For instance, hydrosulphites convert indigo and a number of organic dye stuffs rapidly to colorless substances, while sulphur dioxide and bisulphites have no effect. Hydrosulphite added to groundwood, either fresh or discolored from any of the above mentioned causes, immediately produces a bleaching effect far beyond anything obtainable with bisulphites even under most favorable conditions.

The quantities necessary are usually very small and striking results have been produced by an application of a few tenths of a percent of the weight of the pulp. The hydrosulphites themselves, or their decomposition products, are only slightly acid in character and therefore do not change the pH of the pulp materially. The problem of corrosion so pronounced in case of the bisulphite treatment is thereby largely avoided.

The small quantity involved also obviates the necessity of washing the pulp for the removal of the bleaching chemicals. The reaction is usually completed at ordinary temperatures in 5 to 10 minutes which makes it possible to apply this treatment to the pulp during its regular flow through mixers or beaters or even pipe lines on the way to the machines.

While sodium hydrosulphite is the best known representative of this group, we have found the zinc compound to be more advantageous for this purpose. Zinc hydrosulphite is a white powder, fairly stable in the atmosphere and completely stable in absence of air and moisture. It dissolves but slowly in water and is therefore preferably added as a solid. The reaction with the pulp is, as already mentioned, very rapid and completed at ordinary temperature in less than 10 minutes. The products of the reaction are for the most part water soluble salts, zinc sulphate and zinc thiosulphate which do not affect other conditioners added to the pulp such as alum, dyes, sizing, etc. The quantity necessary varies according to the desired effects and runs usually between .1% and 2% of the weight of the pulp. We rarely know of an application larger than 2% and the maximum brightening effect is usually achieved at a lower percentage.

The color of fresh groundwood such as western hemlock can be raised several points on the Ives Tint photo-

meter scale by an application of .2 to .5% hydrosulphite. The results are particularly striking on groundwood which has become dark during storage from various causes. An application varying between .5 and 1.5% of the weight of the pulp may raise the photometer reading from 5 to 12 points.

It must be remembered that the bleaching effect of hydrosulphite is still due to a reducing reaction with the typical characteristics of a reducing bleach. Reoxidation and reversion of color, however is greatly minimized once the color is permanently fixed in the paper. It is therefore always advisable to add the hydrosulphite as close to the paper machine as practical. Hydrosulphites have an effect on aniline dyes which can be overcome by allowing 5 to 10 minutes to elapse for the completion of the hydrosulphite reaction before the dyes are added.

Where batch mixers or beaters are used the hydrosulphite is conveniently added in weighed amounts during the mixing. Where continuous mixing is used the hydrosulphite is preferably fed by means of dry feeders into the pulp stream.

The advantages of the hydrosulphite treatment can be enumerated as follows:

1—Hydrosulphite acts very rapidly even at low temperature. The entire bleaching time does not exceed ten minutes.

2—Hydrosulphite produces a brightening effect far beyond one possible with sulphur dioxide or bisulphite.

3—Hydrosulphite gives striking results on very dark and discolored woods. Groundwood pulps which have been stored in the open and have been darkened can not only be restored to the original color but beyond.

4—The quantity of hydrosulphite necessary depends on the desired effect and often does not exceed a few tenths of 1%. This obviates the necessity of washing for removal of the reaction products.

5—Hydrosulphite does not change the pH of the pulp during the brightening process and can be carried out in ordinary equipment.

The principal applications of this treatment are in brightening groundwood both fresh and stored for newsprint manufacture, for manufacture of specialties such as groundwood book papers, white wrapping papers, etc. Many tons of Pacific Coast newsprint are treated daily. It has also been possible by this treatment to increase the percentage of groundwood in specialty papers where strength is no particular object and also to substitute unbleached for bleached sulphite pulp in mixture with groundwood owing to the marked increase in color of the latter.

Hydrosulphite will brighten kraft pulp to some degree. It has also a marked effect on sulfite pulp, although not to the extent of that on groundwood or kraft.

THE QUESTION BOX

Some random samples taken from the discussion at the Fall meeting of TAPPI, Pacific Section, October 21, 22

What are your own answers?

Q. Under what conditions, if at all, will bleached sulphite pulp selectively absorb calcium chloride so that there is unequal distribution of chlorides between the stock and white water?

A. When pulp has not been in contact with the water for sufficient time for equilibrium conditions to be established then the pulp may be said to selectively absorb a given salt—chloride in this case.

A. I do not believe that there can possibly be selective absorption by pulp of calcium chloride. If there is more calcium chloride in the stock than there is in the water it simply means that the two have not been in contact long enough for equal distribution. Pulp does not selectively absorb a salt.

* * *

Q. Within ordinary bleachability ranges, 4% to 5½% chlorine, does the strength of an unbleached pulp vary with the chlorine demand?

A. There is no direct relationship between the strength and chlorine demand, at least not enough to rely upon one test giving an indication of what the other will be.

A. There is no definite proof that a cook with a chlorine demand of 5½% chlorine should be any stronger than one with a demand of 4% chlorine—all other variables being constant—nor is there any evidence that the opposite is true.

* * *

Q. What is your reaction to passing on to the operating crew, figures giving the detailed costs of operating their department?

A. We think that in most all cases these detailed cost figures should be passed on to, and clearly explained to the foreman of the department, and that the foreman in turn, should make his men thoroughly familiar with them. This would obviously make for a better spirit and freeness, and could not help but be reflected into better quality, greater uniformity, and greater production at lower costs.

* * *

Q. Do you believe that the amount of depreciation, written off over a period of time, should vary according to the time operated or according to the amount of production?

A. Your question might be answered differently by some other industry. However, in the pulp and paper industry, we think it obvious that most, if not all, equipment should be depreciated neither to time operated nor according to the amount of production, but rather on a straight time basis. This for the reason that most pulp and paper mill equipment and machinery depreciates almost as much when standing idle as when operated to capacity.

Q. Upon what physical characteristic of a fibre does the tear depend, and has it a general correlation with the other chemical and physical tests?

A. The tear quality of a pulp is closely related to fibre length. As beating progresses tear decreases and mullen increases.

A. The tear depends upon the length of the fibre to a great extent and not upon the state of hydration. This is shown by the fact that an increase in hydration does not increase the tear but does increase the mullen and fold. There is not a direct relationship between the fold and mullen as compared with the tear.

* * *

Q. Suppose that all pulp and paper mills were to go on a five day operating basis, could you expect your plant to last longer? Do you think that such a shortening of operating time would have any effect upon obsolescence? Would the five day week have any effect on maintenance costs?

A. We do not expect the plant to last longer, nor do we think that this arrangement would have any effect on obsolescence. The five day week would, in all probability, increase maintenance costs.

* * *

Q. In charting operating data, should not as much effort be placed on effective chart scales, as on quantity of charts produced?

A. It should be the object of a chart to show the relation of one event to another, and to accomplish this requirement, the scales should be so arranged as to show the magnitude of the variables. This magnitude should be such that a minor variation should not have appeared on the chart in a manner as to appear controlling factor.

* * *

Q. Is there any definite reason why a tear curve should decrease with hydration as determined by standard beater methods while the fold and mullen curves slope upward?

A. We believe that a tear is more or less controlled by a cementing of fibres together while a fold and mullen curve depends more on the fibre strength. Therefore, as hydration continues, or the building up of hydrated cellulose or cement which is weaker in tear than the fibre, the tear curve must necessarily drop.

* * *

Q. Is chlorine or chloramine as effective as copper sulfate in controlling algae?

A. Chlorine will kill certain types of algae. Copper sulfate kills all types of algae.

Following is an abstract of the message sent by Allen Abrams, national president of TAPPI, to the Pacific Section, TAPPI, meeting in Seattle for its Fall session on October 21, 22.

TO THE MEMBERS OF
THE PACIFIC SECTION OF TAPPI:

You may well be proud of the fact that yours is the first local section in the present TAPPI organization. You stand at the head of four flourishing district bodies sprung from an organization which numbered but 200 men in 1916, which has grown to more than 1100 in 1932, and which now has an annual budget more than ten times that of sixteen years ago. On its rolls today you will find the names of progressive men throughout the world who are working for the betterment of our industry—managers, technicians, superintendents, cost men, and many from allied industries. Here you have an earnest group searching into the future to improve today's operation; filled with the single purpose of building up the great industry with which we are all associated. Here you have an organization so cosmopolitan that it is recognized and it speaks with authority throughout the pulp and papermaking world.

Membership in this body is a distinct honor since it is evidence of a man's qualifications and ability in some phase of the industry. But too often such an affiliation is taken lightly and I want to assure you gentlemen that your officers are using every precaution to safeguard the value of that membership. Additional benefits are constantly being worked out and passed on.

I recommend that you begin laying plans for next Fall, to take in the TAPPI Fall Meeting, the Institute of Paper Chemistry, and the Chicago Century of Progress—all of which will be in the same geographical section of the country. We want you to attend our national meetings so far as it is possible for you to do so. Here you will become informed, you will make contacts of untold benefit, you will sense the importance of your Association in our industry. You are certain to leave with the conviction that such an occasion merits a considerable expenditure of time and money; and I want to assure you in the future we shall plan to have representatives attend your meetings just as often as possible.

Collective and organized action brings the greatest benefit to us all, and how dependent we are on each other, both economically and in our human relations.

There is no magic art by which this work of your Association can be carried on without adequate financial support. Detached action by separate bodies could only mean confusion and the failure to produce anything comparable with the results we are now getting. We want you to know that the parent organization will give its wholehearted assistance and backing to worthy endeavors. Your officers and committeemen are giving freely of their time and efforts in work for this common good. They believe, with Theodore Roosevelt, that every man owes a portion of his time to the upbuilding of his profession.

And so in turn we bespeak from you loyal and enthusiastic support. We want to become better acquainted with you so that we may share each other's point of view and know one another's problems. We want to feel that there is a comradeship and a common purpose that binds us together, and that our industry will improve only as we progress.

Most sincerely,

ALLEN ABRAMS, President.

Rothschild, Wisconsin.
October 15, 1932.

W. L. RAYMOND

—in charge of the Seattle offices of the Washington Pulp and Paper Corporation, and affiliated mill organizations, spent several weeks in the East in October.

E. M. MILLS

—executive vice-president of the Crown Zellerbach Corporation, San Francisco, presented a petition to President Hoover in October on behalf of Washington and Oregon pulp and paper mills asking prompt relief by administrative action against competition in the domestic market against foreign pulp and news print producers who have the advantage of depreciated currency.

Study of Pulp Economics Suggested to TAPPI Men

A feature discussion of the Fall meeting of the Pacific Section of TAPPI was the address on the "General Economic Outlook for the Pulp Industry" by R. B. Wolf, manager, Weyerhaeuser Timber Company, Pulp Division. The following is a condensed review of some of the interesting points brought out.

WHERE QUALITY INCREASES competition decreases. From the point of view of the Pacific Coast pulp industry it is important to keep definitely in mind that, since Pacific Coast pulp enters a world market, it is essential that efforts be concentrated on the production of a quality product. That explains why the Pacific Section of TAPPI has a real interest in what might be called the economics of the pulp industry.

In digest, that was the forceful thought put on September 22nd before the men attending the annual Fall meeting of the Pacific Section of TAPPI in Seattle by Mr. R. B. Wolf, Manager, Pulp Division, Weyerhaeuser Timber Company, in discussing the "General Economic Outlook for the Pulp Industry".

Following a review of statistics on world wood pulp production and international trade movements in the commodity, in the course of which Mr. Wolf showed the important part played by the comparatively new West Coast industry, the speaker presented a clear picture of the factors in hand which made the West Coast industry possible and pointed out how TAPPI as a body could function in making the most of these advantages.

"Particularly in the face of current conditions," Mr. Wolf said, "no one would think of going into the world market unless reasonably sure that they could produce a quality of pulp that would be accepted in a world market. I can definitely say we know that we can produce on the Coast a pulp second to none, in paper making qualities."

Mr. Wolf has only recently returned from a visit to the East which extended over a period of several months and covered a wide territory. His discussion was livened by various references to recent experiences in the East which substantiated the claims for quality of West Coast pulp.

Mr. Wolf pointed out several factors which gave to the Pacific Coast pulp mills a primary advantage in competing in the world market. Among these were: abundant, well placed, low cost wood supplies; advantages in linking lumbering and logging operations with pulp manufacture; favorable climate which reduced building and maintenance costs and also provided ideal working conditions; transportation advantages and tide water locations; year round logging conditions, making pulp wood storage unnecessary.

Particular stress was laid on the desirable pulping qualities of Western Hemlock. "It is an excellent wood," Mr. Wolf said, "and it is only a matter of time until it will be generally recognized as a pulp making material second to none in the production of high quality pulp."

"The Pacific Section of TAPPI has an opportunity to render a real service in the development of the pulp industry, for what the paper industry in the

United States wants is a thoroughly dependable source of supply of a uniformly high grade pulp."

"The exchange of ideas between technical men," the speaker explained, "will prevent each unit of the industry from duplicating the mistakes of others." Mr. Wolf explained that the Weyerhaeuser Timber Company subscribed to a policy of mutual understanding between the pulp consuming mills in the East and pulp producing mills in the West, that they encouraged an exchange of views by personal visits with the idea of more fully understanding the requirements of the consumer so that these requirements could be more intelligently met.

The speaker urged that the technical men acquaint themselves with the economics of the industry as a whole in order that each might more clearly understand his own function in the industry and thereby increase the value of his efforts by more complete understanding and correlation of his own work with the work of others.

"In order to produce high quality pulp it is essential that the plant function as a whole," Mr. Wolf said, "and the technical man plays a vitally important part in the process of unification. It is not his job to tell the others what to do, but it is his primary function to measure results quantitatively and qualitatively. Such information made available to the operators will increase their understanding of their own operation and, if properly done, their comprehension of the plant as a whole.

"We must not stop here, however, but use our technical method of approach to make ourselves conscious of the needs of the entire industry. It is only by so doing that the Pacific pulp producers will become definitely integrated into the American paper industry."

BEARS OR PULPTIMBER

The annual meeting* of the National Association of Audubon Societies was thrown into an uproar when a clamorous minority shouted its protests against the officers of the association and charged the administration with favoring wood pulp interests in opposing its efforts to have Admiralty Island, Alaska, set aside as a sanctuary for brown bears.

The most serious disturbance, accompanied by shouts, challenges, threats and a frantic pounding of the chairman's gavel for order, was precipitated by the demand of John M. Holzworth, chairman of the Alaskan bear committee of the New York Zoological Society, that the association ratify the action of the directors last December in approving the establishment of Admiralty and Chicagof islands in Alaska as a wild-life preserve for the brown and grizzly bears.

In the face of a motion to refer his resolution asking ratification to the board of directors, Mr. Holzworth persisted, amid hisses as well as applause, in reading a letter written by T. Gilbert Pearson, president of the association, to the Massachusetts Audubon Society, marked as a copy to state and local societies.

The letter, as read by Mr. Holzworth, recited a resolution of the directors favoring Mr. Holzworth's plans for the wild-life preserve in Alaska, and commended his suggestion that candidates for Congress be influenced to pledge their support to legislation to assure the Alaskan sanctuary.

Ridicules Promise of Inquiry

During this episode of the meeting Mr. Holzworth pointed an accusing finger at the chairman, Dr. Theo-

dore S. Palmer, first vice president of the society and chief biologist of the United States Biological Survey, and charged the chairman with "working hand in hand with the wood pulp interests." Mr. Holzworth, when told that the directors would investigate his plans, remarked:

"Another Hoover commission, I suppose."

Mr. Pearson, who had sat quietly during the controversy, arose and explained that he had written this resolution passed by the directors last December and defended Dr. Palmer by saying that the chairman had not opposed the resolution. He said, however, that other members of the board had felt that their decision might have been "hasty" and that it should receive further consideration. He also informed the gathering that the federal government was making an investigation of the sanctuary.

By a vote of 3,902 to 851, mostly by proxy, Mr. Holzworth's resolution asking ratification of Mr. Pearson's resolution last December was referred to the directors. A substitute resolution, offered by William P. Wharton, secretary of the association, was adopted by a substantial majority. The resolution "strongly favored the establishment of further suitably situated sanctuaries for the Alaskan brown bear," but made no mention of Admiralty Island.

Accuses Timber Interests

Mr. Holzworth, who is also president of the National Association of Wild Life Conservationists, said that more than fifty national and state organizations had endorsed his plans for Admiralty Island and that among his opponents was George Pratt, president of the American Forestry Association.

He pointed out to reporters that the Biological Survey was under the Department of Agriculture, which, he said, had given George Cameron† of California a fifty-year concession covering 5,000 square miles of virgin timber, mostly spruce, on Admiralty Island for 30 to 50 cents per 1,000 feet, while timber in British Columbia sold for \$5 per 1,000 feet.

Mr. Holzworth openly charged in the meeting that the Department of Agriculture had granted the concession on Admiralty Island to "a huge contributor" to the Republican campaign in 1928.

†Publisher of the San Francisco Chronicle.

LABOR FAVORS TARIFF

—protection for the pulp and paper industry, if the attitude of Escanaba Local No. 209, International Brotherhood of Paper Makers, Escanaba, Michigan, is criterion. Local No. 209 passed a resolution in October pointing out the mounting tide of imports of wood pulp and paper which is forcing the domestic industry to the wall, and with it the jobs of the paper makers.

The resolution, after citing difficulties of the industry, petitions "Congress to create a tariff which will adequately safeguard the pulp and paper industry."

Copies of the resolution were sent to other local Paper Makers' unions and Pulp and Sulphite Workers' unions in the United States, to pulp and paper manufacturers, and to chambers of commerce in cities where such industries are located, "urging them to cooperate in bringing pressure to bear on Congress to secure action."

A. H. B. JORDAN

—vice president and superintendent of the Everett Pulp & Paper Company, Everett, Washington, was named in October to serve as treasurer of the Snohomish county Republican central committee.

*At New York, October 25, 1932.

Editor's Note:—This is a condensed version of a story appearing in the New York Times for October 26, 1932.

PACIFIC COAST NEWSPRINT

—executives continued to read with rising apprehension the news from eastern Canada last month and settled back for a further period of "wait-and-see".

At the moment of writing there are indications that a merger embracing all the larger newsprint producers in eastern Canada, including International, may materialize before the end of the year.

Meanwhile, Price Brothers, longtime newsprint Gibraltar, declared inability to meet November bond interest. Reason: insufficient revenues.

From the standpoint of the mills one of the most satisfactory achievements of the month was an agreement on limited pooling of tonnage to avert further price breaks and contract switching.

It was disclosed that some Canadian mills are able to manufacture newsprint at \$18 to \$20 a ton for base cost, if given long-term contracts for near-capacity operation.

The newsprint industry, despite all calamity howling, has not been hit by the depression as other industries, so far as demand is concerned. In the greatest year of demand—1929—2,729,000 tons of newsprint were produced. In 1931 production dropped to 2,221,000 tons, a decline of only 18.20 per cent.

Difficulties have come through provincial government-encouraged excess expansion, causing over-capitalization.

Operating ratios once close to 100%, have steadily dropped. Today 50% is envied. Desire to reduce overhead by increasing tonnage brought the epidemic of price cutting which threatened to demoralize the whole newsprint market last month.

International's action in invading the Canadian market brought considerable criticism of International's President A. R. Graustein for promise breaking. International, on the other hand, claims adherence to price schedules.

West Coast mills were interested in reports from Australia that eastern Canadian mills had started to cut prices in that country, one of the best overseas markets. Eastern mills for several years serving Australian markets have kept prices at an equitable level. Within recent weeks Mersey Paper Company overthrew this arrangement by taking several thousand tons of business below established figures.

As further evidence of price cutting there is the case of Great Lakes Paper Company, operated in receivership by National Trust Company, which is said to have been selling newsprint in New York at less than \$40 a ton, as compared with the official rate of \$45.

NEAH BAY BREAKWATER

—came one step nearer realization in October when a report on the project was forwarded from the Seattle office of the United States Engineers to Washington, D. C. for examination there by the board of engineers for rivers and harbors.

The breakwater would protect shipping at Neah Bay, Washington, extreme Northwest point in the United States, where important fishing and pulpwood logging interests are centered.

H. ARTHUR DUNN

—returned recently to San Francisco from a trip through the Pacific Northwest and left soon afterwards for a visit to Los Angeles. Mr. Dunn is secretary of the Pacific States Paper Trade Association and met with the members in the various coast cities he visited.

PAPER MERCHANTS

—of Southern California gathered in Los Angeles November 7 and 8 under the auspices of the Pacific States Paper Trade Association, to discuss conditions in the southern territory and to forward improvement measures.

Haroll Zellerbach, president of the coast association, presided. Current chaotic and demoralized conditions in the local trade brought about the meeting, the specific purpose of which was to bring about a better spirit of co-operation among those handling wrapping paper and bags. These were the main items under consideration.

The merchants met with the mills relations committee. Mill representatives selling wrapping paper and bags in the Los Angeles district were available for the discussion.

After the two-day conference association officials reported encouraging progress. Permanent good depends on a continuation of the confidence generated at the meeting.

Similar meetings have been held in other coast cities, and it is said that further conferences will be held in each section as conditions warrant.

Southern California conditions in the paper trade have been a source of dissatisfaction for some time. Prices are said to be lower in Los Angeles on many items, notably wrapping paper and bags, than in other coast trading centers.

Volume is showing a little improvement. There have been more orders, perhaps due to the coming holiday season, but most of them are very small. Still, there has not been the improvement many expected 60 days ago in view of conditions at that time.

Desire to have low end-of-year inventories interferes with stocking up for any big business at this time.

Wrapping paper has been selling well, due to holiday demand and low prices. Box manufacturers are all busy and showing the expected seasonal increase in business.

General business conditions in Southern California have been slow in the past several months, which naturally reflects itself in the volume of paper used. The citrus industry has experienced good crops this year but extremely low prices, which have hindered the movement of citrus wrapping paper. In spite of this fact, citrus wraps have continued in fairly satisfactory volume.

WESTMINSTER PAPER

—Company of New Westminster, B. C., has had a satisfactory year and has been able to improve its financial position, according to J. J. Herb, president. A dividend of 4% was declared at a meeting of shareholders recently.

With a payroll of 100 men and women, the company has been operating full time all year, manufacturing specialties, tissues and wrappers.

In spite of severe competition from Scandinavian countries, especially in the Australian markets, the company's sales have been well maintained, according to Mr. Herb.

The company's annual sales of paper products are valued at \$500,000. Total assets in plant, equipment and investment are placed at \$995,264.

Directors elected were: J. J. Herb, H. M. Lord, J. G. Robson, C. S. Henley, F. Wright, S. A. Lake, Mayor A. Wells Grays and J. Peck.

WASHINGTON PULP

—and Paper Corporation, 300-ton news print mill at Port Angeles, Washington, is making some changes in the wood room. A new 110-inch Sumner Iron Works disc chipper is being installed.

One of the most interesting features of the installation is that the new chipper will handle log diameters up to 24 inches. This unusually large size is particularly adaptable for the typical Western Hemlock pulp timber that is accessible to Pacific Coast mills. The wood will be handled in lengths ranging up to about 8 feet.

By increasing the size of the chipper spout the mill eliminates the necessity of breaking down the logs into small cants and thereby effects a considerable saving in wood and handling. Fewer pieces are handled and the output is increased. There is much less sawdust, as there is necessity only to break open the larger logs. There is also a reduction in slivered wood resulting from steam splitting.

The Washington Pulp & Paper Corporation, a division of the Crown Zellerbach Corporation, produces news print only. In recent months it has been operating at a much reduced capacity.

Whereas that part of the wood room now being modernized is equipped to handle logs, the mill is also a volume buyer of cordwood, cut and prepared by local farmers and small contractors.

The company also operates a pulpwood logging and chipping camp at Neah Bay, some 60 miles to westward, but this camp has now been closed down for the winter due to the inclement rainy season and the extra hazards involved in towing.

MILLS NEAR PORTLAND

—territory were all fairly busy about the first of this month. At West Linn the Crown Willamette mill, which had been down for two weeks in October, started up October 31 on a curtailed schedule of four to five days a week. At Camas the Crown mill has been running fairly well. At Salem the Oregon Pulp & Paper Company mill is reported running full again. At Oregon City the Hawley Pulp & Paper Company has been doing a fair business. At Longview the Longview Fibre has been running about full. The St. Helens Pulp & Paper Company is running on full time. During the period that the Crown Willamette mill at West Linn was down during October a number of changes in the wood mill were completed. A new edger was installed and a new sorting apron was added and there was a rearrangement effected of conveyors and barkers.

RAINIER PULP

—and Paper Co., operating a 135-ton rayon-grade sulphite pulp mill at Shelton, Washington, will continue operation under incumbent directors. The amended incorporation certificate provides that when dividends on Class A stock aggregate \$3 in arrears, stockholders of this class shall be entitled to elect a majority of the board of directors. The dividend arrears having become a fact, Class A stockholders met in San Francisco on October 31 and reelected all incumbent directors.

OPERATING MANAGERS

—of the Crown Zellerbach group of mills will hold the annual meeting of their Association in San Francisco on Wednesday, Thursday, Friday and Saturday, November 16 to 19 inclusive.

ACTION OF AMMONIUM SULPHITE ON WOOD (ABIES GRANDIS)

Summary of a paper prepared by W. S. Hefner and E. C. Jahn, Department of Forestry, University of Idaho, and presented by the latter at the Fall meeting of the Pacific Section of TAPPI at Seattle, October 21-22, 1932.

PULPING wood with ammonium sulphate falls into that class of processes commonly known as "semi-chemical" pulping. Semi-chemical processes involve a cook with a relatively mild cooking agent, such as a sodium sulphite or sodium carbonate, followed by mechanical disintegration. The product of the semi-chemical process is termed "sеме-cellulose" which indicates that the pulp contains a large percentage of lignin.

Summary

A study has been made of the action of ammonium sulphite on lowland white fir (*Abies Grandis*). The results of this study indicates the following:

1. Removal of lignin increases with (a) increase in the amount of chemical used; (b) increased duration of digestion up to 6 hours; (c) increased temperature of digestion.
2. The amount of lignin in the residual wood decreases with the amount of chemical used, decreases with increased time of digestion up to 6 hours, but increases with increased temperature of digestion above 160°C.
3. The cellulose content of the residual wood increases with increased amount of chemical used up to 50% of the dry weight of the wood, then decreases. Lower amounts of chemicals (15-25%) result in degradation of the cellulose. Increased cooking time yields residual woods of higher cellulose content, but there is increased degradation of the cellulose based on the original wood.
4. Addition of ammonium hydroxide to the ammonium sulphite increases the yield, decreases the degradation of cellulose, and increases pentosan removal. Addition of sulphurous acid decreases the removal of pentosans, decreases the yield, increases degradation of the cellulose, but increases the cellulose content of the residual wood.
5. The yield is decreased with increased duration of the cook and with increased temperature. The yield varies comparatively little with increased amounts of chemical at constant cooking time and temperature of the residual wood but follows the same trend as the cellulose content.
6. Pulp in yields of 72-73% may be obtained from lowland white fir chips by digesting with 26-35% ammonium sulphite for 6-7 hours total cooking time and with a maximum temperature of 175°C. The cooked chips are readily defibred in a rod mill.

NORWEGIAN NEWSPRINT

—is selling at prices, which converted into gold currencies, are ruinously low. The general market price on newsprint to foreign buyers is now approximately £7 sterling per metric ton, f.o.b. Norwegian port. If sterling and crown currencies were still on the gold basis this would approximate \$34 per ton, but at present exchange rates amounts to less than \$25 per metric ton and about \$21.50 per short ton. Even considering Norwegian price levels have changed very little since the suspension of the gold standard, such prices can not possibly give a fair return to the manufacturer of pulp and paper.

MORE APPROVED CHEMISTS

A Suggestion

By LAWRENCE W. KILLAM,
President and Managing Director
British Columbia Pulp & Paper Company, Ltd.

It is becoming quite common for purchasers of pulp to require statements in detail showing gross and net weights and moisture tests with regard to each separate cook included in a shipment. In many cases, it is necessary that such statement should be signed by an approved chemist so designated by TAPPI.

At the present time, it is customary for TAPPI to appoint only one such approved chemist at each plant. In case such chemist should become sick, or go on a holiday or change his work in the plant, there is difficulty in regard to approved statements.

In most larger plants manufacturing sulphite pulp there may be several chemists fully qualified to approve statements regarding tests, and it would seem that no lowering of standard would result from the appointment of more approved chemists where they are needed.

The suggestion has been offered that this difficulty appears particularly in mills of the Pacific Northwest where the plants are often long distances from cities, and where shipments are made by water, to foreign countries. It would, therefore, seem very reasonable to hope that the Pacific Section of TAPPI might obtain permission from the parent body to appoint approved chemists and that thereby such appointments might be made more quickly to fill any urgent need.

HUGE JAPANESE MERGER

—of paper producers, reported to be near reality, may result in important advantages for the pulp business on the West Coast, according to Lawrence W. Killam, president of B. C. Pulp & Paper Company.

"There is no reason for us to believe that amalgamation of the big Japanese companies will be harmful, and if the new organization will co-operate with us, as I expect they will, the sequel should be decidedly a gain for the Pacific Northwest mills," said Mr. Killam. "Depression of the yen is likely to retard business with Japan for some time, in any event."

Oscar Jorgenson, secretary of the B. C. Pulp & Paper Company, is now in Japan studying market conditions and he has already filed several reports to Vancouver head office. A more detailed statement on the probable effect of the merger will probably be forthcoming on Mr. Jorgenson's return, as he is investigating all phases of the pulp situation in the Orient.

Absorption by the Oji Paper Manufacturing Company of the Fuji Paper Company and the Karafutu Industry Company will give the consolidated concern 90 percent of the milling capacity of Japan. The merger will be on the ratio of 100 for Oji, 140 for Fuji and 245 for Karafuto.

"The only possible injury the new combination could do mills on this coast," said Mr. Killam, "would be a successful campaign to increase their tariff protection. Such action has been rumored for a long time, but it has always been held off through the influence of Japanese publishers. Personally, I think the relations between the new company and this coast will be on a friendly and helpful basis for all concerned."

The new company will enjoy virtually a monopoly of the business in paper produced in Japan. It will continue to bear the Oji name. Ginjiro Fujiwara will remain as president.

Oji, like many other huge industrial corporations in

Japan, is controlled by the all-powerful Mitsui interests, who own coal mines, steamships, steel mills, stores and newspapers. Representatives of the Mitsuis have been careful to point out, however, that they do not wish to appear to the public as monopolists of the paper industry. They will have nothing to do with the direction of the company's affairs, their only relationship with the administration being that of 41 percent shareholders.

It is understood that manufacture of rayon pulp on a large scale will be undertaken by the new company.

Rated annual capacity of the mills affected by the merger totals about 700,000 tons. The company's control of pulp manufacture will be as complete as that of paper.

THE TRAFFIC MANAGER

—was carrying a new book under his arm as he came down from his office.

"The new Northwest pulp and paper tariff," he explained. "It's the least complicated tariff I've ever seen. Look, it shows rates from each mill point to each destination. Here's Oregon City, St. Helens, Longview, Everett, and the others. It combines the pulp and paper rates that were in the three general commodity tariffs of Henry's bureau, 5-0, 2-C and 1-G. Now we've got all our Northwest pulp and paper rates in one tariff."

"When does it go into effect?"

"December 7."

"What's its official name?"

"No. 80. Henry's No. 80. It covers Oregon, Washington, Idaho and British Columbia with some rail and water combinations to California. I haven't had time to go through it yet to see what changes are in it, but I notice that it reduces the minimum on fruit wraps from 50,000 pounds back to 40,000 pounds; that's to Wenatchee, Yakima and Walla Walla districts. It was 40,000, you know, and they cut the rate and shot the minimum up. Now we've got the lower rate and the old minimum."

"Anything else of interest?"

"Well, there's the wharfage in Los Angeles. It was 10 cents a ton and the coastwise carriers were absorbing it. Then the port commission raised wharfage charges to meet expenses. Now the rates are 15 cents a ton and the full amount is for account of the shipper—the carriers aren't absorbing any of it. On top of that there's another 5 cents a ton if the stuff moves off the dock by truck—all to be paid by shipper or consignee."

"Speaking of trucks, what's your reaction to the West freight truck and bus bill in Oregon? Are the paper mills going to be affected if it goes through?"

"They surely are. It's plainly a railroad measure for the purpose of driving the trucks off the highway. If they get them off then that's an end of the present low rates. They'll put all their high rates back in again. The railroads would be much better off if they would let the trucks have the less-than-carload business."

"Don't you think trucks should be regulated at all?"

"Yes, I do think they should be, but it should be sound, sensible regulation. They should be made to pay their fair share of the highway cost, if they're not paying it, but not more. There should be proper regulation of the various classes of trucks—common carriers, contract haulers, etc. But they shouldn't be strangled for the sake of the railroads."

IN OTHER LANDS

EXPORTS OF PULP

—and paper from the Scandinavian countries and Finland during the first six months of the current year were substantially above similar shipments during the corresponding period in 1931. Wood pulp shipments show the least increase, due to the labor trouble in the Swedish pulp mills, which held up production and shipments from April 11 until the middle of August. As a result, Swedish exports of mechanical pulp show a decrease of 33%, sulphite shipments a decrease of 28%, and sulphate shipments a decrease 18%.

Heavy increases in shipments from Norway and Finland brought the total for the three countries, however, above that for the corresponding total in 1931, mechanical groundwood and sulphite exports showing a gain of 11% each, while sulphate shipments show a loss of less than 1%.

Paper and board shipments from Sweden have more than held their own during 1932, total exports for the first six months exceeding those of the corresponding period last year by 22%, while the total for the three countries shows a gain of 32%.

Total shipments of the various classes of pulp and paper from the three countries mentioned during the first half of 1932, together with percentage of increase over last year, were as follows: Mechanical groundwood 474,820 (11%), sulphite pulp 532,169 (11%), sulphate pulp 237,265 (-1%), boards 60,474 (41%), newsprint 281,328 (37%), wrapping paper 281,328 (17%), total paper 508,205 (31%); all quantities shows in metric tons of 2,205 pounds.

TARIFF REVISIONS

—inaugurated by the Dominion in October, following the Imperial Economic Conference at Ottawa, have little direct effect upon the pulp and paper industry. More indirect effect is found in new schedules favoring United Kingdom on imports of chemicals, machinery and supplies.

NEWS PRINT MERGER

—efforts in Canada that look to consolidation of the great bulk of the Dominion's industry in one control are making progress slowly. Recent price slashes have thrown the competitive market back to the near-jungle stage, and events seem to forecast a possible shakedown with the strongest surviving.

LAKE ST. JOHN

—Power & Paper Company, in default since August 1 on interest covering in excess of \$7,500,000 in bonds and debentures, will have to reckon with a bondholders' protective committee.

SWEDISH NEWSPRINT

—production during the month of August totaled 19,380 metric tons as against 17,804 tons in the preceding month and 24,066 tons in August, 1931. Notwithstanding the cessation of production in wood pulp mills from April to August owing to labor troubles, production of newsprint in Sweden during the first 8 months of the current year, which totaled 160,841 tons, is 17,723 tons, or 12% in excess of the output for the corresponding 8 months in 1931.

SWEDISH PULP

—producers have been discussing formation of a cartel to include the entire Swedish chemical pulp industry. It now appears not unlikely that such an organization may be successfully launched. It has been a considerable handicap to the Swedish industry not to have had the advantages of such an organization for their export trade, inasmuch as similar organizations have been established in most other chemical pulp producing countries. Attempts in the past to form such an organization, however, have met with failure. As a consequence, Swedish pulp producers selling in foreign markets have competed against each other. The new organization should therefore have a stabilizing effect on prices quoted on Swedish pulp in foreign markets.

CANADA'S PULP EXPORTS

—during the month of August totaled 34,259 short tons, an increase of 1,333 tons compared with the preceding month but a decrease of 20,454 tons compared with the corresponding month in 1931. The heaviest decline, compared with one year ago, occurred in shipments of mechanical groundwood, which dropped from 17,529 tons to 4,988 tons. Bleached sulphite exports also underwent a heavy decrease—from 25,023 tons to 18,455 tons. Kraft shipments, on the other hand, show a slight increase, while shipments of unbleached sulphite were less by only 1,048 tons.

GERMAN PAPER

—manufacturers and converters have agreed to diminish production by one-sixth through the introduction of a one-day rest period during the week and appropriate steps have already been taken in this direction. This action has been taken at the instance of the commission appointed at a meeting of paper manufacturers held in Munich early in June. The commission has also proposed the abandonment of establishments working at a loss and the regulation of prices through groups of experts.

BETTER NEWS PRINT

—was subject of discussion by international experts at Government Printing Office in Washington in October. Manufacturers of news print and ink, government officials, publishers talked in terms of sulphite content, effects of filler, size, and furnish, ink absorption and opacity.

1100 TONS OF PAPERBOARD

—will be shipped December 13 by the Pacific Straw Paper & Board Company, Longview, Washington, to the American Tobacco Company at Shanghai. It is a repeat order. It is also one explanation why President Charles Schaub's 50-ton mill has been one of the steadiest operators during the "recent" depression.

JAPAN IMPORTED

—in August, pounds of chemical pulp from Canada, 874,800; Norway, 2,324,800; United States, 3,316,800; Sweden, 5,554,667; France, 237,066; Holland, 1,867; and from other Europe, 460,800. Total imports, 12,770,800 lbs.

EASTBOUND PULP

—will be carried on intercoastal steamers at the rate of 25c per 100 lbs., plus 3% surcharge, baled to exceed not more than 60 cu. ft. per 2000 lbs., in 350-ton lots or more. The rate has been extended one year to December 31, 1933, and the minimum lot has been increased.

NEWS FROM ELSEWHERE

BOGALUSA PAPER CO.

—Bogalusa, La., are reconstructing their No. 1 board machine, embodying many entirely new features.

The wet end will be completely new with 60" diameter cylinder molds, all metal vats, suction presses instead of the usual primary presses, two large main suction presses and one regular press. The present dryer section will be followed by a three-roll smoothing stack and size press. Twelve new dryers will be installed after the size press. This size press will produce a much better printing surface besides adding to the bulk of the sheet.

The drive will be entirely new, of the enclosed spiral bevel gear type. Cylinder molds and suction presses ahead of the first press will be sectionally electric driven.

The machine, when completed, will be epoch making and will produce board at the rate of five hundred feet per minute, a speed, so far, unknown in the paperboard industry.

The Bogalusa Paper Co. is a firm believer that only the best equipped mills will be able to succeed in the future and that now is the time to put the productive equipment of their plants into very best of condition. They also believe that it is their patriotic duty to go ahead with reconstruction work now in order to mitigate the depression and speed the return to normalcy.

WORK-SHARING

—plans are being studied by a committee representing the entire paper-board industry, including mills, container plants and folding box plants. This committee was appointed at a meeting of the Paperboard Industries Association last month, and is headed by G. G. Otto, of the Alton Box Board & Paper Company, of Alton, Ill., as chairman.

Mr. Otto said that the committee probably would begin its work by issuing a questionnaire for the purpose of developing basic facts upon which could be worked out some plan along the lines suggested by the Co-ordination Committee of the Share-the-Work Movement, of which Walter C. Teagle is chairman.

"I really feel," Mr. Otto said, "that it would be an excellent thing for our industry as a whole for every man in the industry to get behind this proposition and give it thorough support."

TAX MORATORIUMS

—of one kind or another have been asked by DePere Paper Manufacturing Co., Wisconsin; Bogalusa Paper Co., Louisiana; Mazer Paper Mills, Inc., Vermont. DePere, destroyed by fire in 1931, asks remission of city and county taxes for 1930 and 1931. Officers state rebuilding is about to start. Bogalusa voters have approved a five-year exemption from taxes on new \$1,250,000 improvements now being built into the mill. Mazer executives ask also a decrease in the wage scale and lower power rates.

CRYSTAL TISSUE

—Company's net sales for first nine months of 1932 fell to \$709,000 from \$1,088,000 for 1931. Balance sheet showed 1932 nine-months' net loss of \$18,000 as against \$61,000 net income same period last year, after taxes, depreciation and other charges.

DILL & COLLINS

—Philadelphia manufacturers of high grade book, bond, cover and envelope papers, will soon be reorganized on a sound financial footing and the present receivership will be terminated. Grellet Collins will continue as president and no major change in staff or policies of manufacture and distribution is contemplated.

MUNISING PAPER CO.

—manufacturers of Caslon Bond, have appointed H. J. Miner, for 37 years connected with the Hollingsworth & Whitney Paper Co., as general sales manager of the Munising organization. Sales headquarters of Munising have been moved from the mill at Munising, Michigan, to the Wrigley Building, Chicago.

PAPERBOARD

—production reflects general business activity, Paperboard Industries Association points out. First half of 1932 showed production 15% below same period 1931, but August showed reassuring upturn, more inquiries, stiffening prices. September showed still more improvement.

FOX RIVER PAPER COMPANY

—makes a survey of the eight essentials of any good rag bond paper in a broadside mailed in October to Pacific Coast customers through the Zellerbach Paper Company, Western distributors. Essentials listed are: cleanliness, strength, uniformity, beauty, printability, dependability, convenience, economy.

KIMBERLY-CLARK

—Corporation, Wisconsin, has added coated papers to its line. Necessary to this diversification was plant improvement estimated to have cost some \$150,000.

NEWTON FALLS

—Paper Corporation, New York, suppliers of magazine papers to owners McGraw-Hill Corporation and United Publishers' Corporation, plans to spend \$100,000 for mill improvement.

CONTAINER CORPORATION

—of America showed a net loss of \$1,079,000 for first nine months of 1932, compared with net loss of \$301,000 for corresponding period in 1931. Profits realized on purchase of bonds and debentures for sinking fund purposes are included in 1932 statement.

LAKE STATES SECTION

—of TAPPI drew a good turnout at Appleton, Wisconsin, on October 11 at monthly meeting. Headline guests included Allen Abrams, national president, and John H. Slater, Escanaba Paper Company manager.

SOUTHERN KRAFT

—Corporation reopened its 110-ton kraft wrapping paper mill at Moss Point, Mississippi, on October 3 after a shut down which began with the year 1932.

MIAMISBURG PAPER COMPANY

—Miamisburg, Ohio, has installed a suction press with spiral drive and a new size press with dryers on their 128" machine.

HARTFORD CITY

—Paper Company, Hartford City, Indiana, has added three suction rolls on their 95" machine and all new spiral drives.

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of those who sell paper in the western states

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A FLOATING SHOWCASE

—of Pacific Coast products is sailing down to Latin America to drum up a bit of trade. It left the Pacific Coast in early November and it is known in everyday life as the Swayne & Hoyt steamer "Point Ancha".

Exhibits of Pacific Coast paper and paper products were part of the "exposition steamer" exhibits.

Crown Willamette Paper Co. and Fibreboard Products Inc., were represented, the first with wrapping paper, bags, roll toilet tissues, fruit papers, news print, napkins and towels. The Fibreboard display was of cartons, shipping cases and all kinds of board. L. L. Larimer of the advertising department of Crown Zellerbach Corporation directed the installation of the exhibit for these two companies.

The Hawley Pulp & Paper Co. had an exhibit made up of news print, butcher paper, tissues, crepe pad paper, crepe towel, fruit wrap, white and manila sulphites, cover paper and other items.

All exhibits were described in both Spanish and English.

RODMAN C. PELL, JR.—

—head of the Pelican Paper Company, San Francisco, came back from his sixth trip to the South Seas recently with an excellent motion picture chronicle of the places he visited, the people he saw and the things he did. During the past several weeks Mr. Pell has exhibited this picture before various organizations and groups and many have declared it one of the finest amateur pictures ever taken.

Mr. Pell gave showings for the Zellerbach Paper Company and the Crown Zellerbach Corporation and also had a group of paper people at his office November 3 to witness the pictures. In this group were C. H. Wiley, San Francisco representative of the Kalamazoo Vegetable Products Co., Ed McQuaide of the Pacific Coast Paper Co., Lloyd Riches, San Francisco district manager of the Hawley Pulp and Paper Co., John Kirby, assistant sales manager of the National Paper Products Co. and Charles Davis of the Crown Zellerbach Corporation.

There is no advertising in the picture, the only mention of Mr. Pell's firm being at the end, when there flashes on the screen the words "Compliments of the Pelican Paper Co." At the start and close of the film there are a few flickers showing a graceful white pelican swimming toward the camera.

Accompanying each showing is Tahitian music and singing by a native boy, Manelonia Tapoomatai, who came back with Mr. Pell to attend the University of San Francisco.

Whipple S. Hall of the Whipple S. Hall Co., Manila paper merchants, was in San Francisco in November enroute east.

LOS ANGELES

—was a port of call for a number of paper men from other parts of the country during October and early November. From West Carrollton, Ohio, came Carlton Smith, president of the American Envelope Co. From the New York office of Missisquoi Pulp and Paper Co. came Ted Lyman to represent the mill at Sheldon Springs, Vt. Mr. Lyman went on north to Seattle.

Frank Frampton was on the Coast, his first trip out in fifteen years. He was formerly with Blake, Moffitt & Towne and is now general manager of the Hopper Paper Co. of Taylorville, Ill. While in the West he visited relatives, among whom was C. G. Frampton, superintendent of the California Fruit Wrapping Mills at Pomona.

Another notable traveler was M. J. Collins, president of the Graham Paper Co., St. Louis, Mo. He spent a week in Los Angeles with Frank Philbrook, and then went on for a week in San Francisco and a few days in Portland before turning eastward again.

From the north came W. J. Pilz, manager of the Everett Pulp & Paper Co., Everett, Wash., in Los Angeles for a week with A. A. Ernst, who is in charge of the L. A. office.

George W. Houk, executive vice-president of the Hawley Pulp & Paper Co. at Oregon City, Ore., spent a week with N. L. Brinker, who handles sales in L. A. Harold Zellerbach was at the Los Angeles branch of the Zellerbach Paper Co.

Paper men are still spending money with the railroads, and going after business.

S. R. WHITING

—manager of the Los Angeles branch sales office of the Inland Empire Paper Co., Millwood, Wash., left for San Francisco November 3 on one of a series of trips he is now making to the Bay City. It is understood he plans to spend a couple of weeks each month in the northern territory.

The Los Angeles branch was opened last May with Mr. Whiting in charge, assisted by Richard W. Walker, who comes from Millwood. Mr. Whiting was formerly sales manager for the Sierra Paper Co. in Los Angeles, and later with the French Paper Co. This is said to be the first branch sales office carrying stocks, operated by the Inland company since about 1915.

Through this office they handle newsprint, second sheets, high grade news and mimeograph paper.

SIGNS OF THE TIMES

—get some recognition in the October issue of "The Informant," corporation publication of the Zellerbach Paper Company. To quote: "As we walk along the main streets of cities nowadays we see such signs as 'Bankrupt Sale,' 'We Quit Sale,' 'Going Out of Business Sale,' 'Closing Up Forever Sale.' It is refreshing to see the sign over one merchant's door in Los Angeles. It reads: 'Staying In Business Sale.' The one that takes the prize is 'Wasn't the Depression Terrible!'"

HAWLEY PULP & PAPER CO.

—has contracted with the Morton Manufacturing Co. of Chicago for the manufacture of tissue toilet seat covers to supply the Chicago firm's Pacific Coast trade, according to George W. Houk, executive vice president of Hawley company. The Chicago firm holds patent rights on the seat cover and the dispensing unit.

On the Pacific Coast the sales will be handled by the Sani Gard Sales Company, 1200 Title Guarantee Building, Los Angeles, which will sell direct to such large accounts as oil companies, who use the cover in their service station rest rooms, and will retail through the paper jobbers.

Mr. Warren Dunnell is in charge of Sani Gard Sales Company.

"The tissue is specially made," Mr. Houk said, "and is more soluble than any tissue made heretofore on the Coast. It is manufactured 100 covers to a pad and ten pads to a carton."

UNEMPLOYMENT STATISTICS

—took a downward drop when the General Paper Co., San Francisco, recently added five new salesmen, two to work in the fine paper department and three in the newly-established coarse paper branch.

Manager W. B. Reynolds says the coarse paper lines were added recently to enable General to give better service to its customers. This is the first time in the fifteen years of the company's existence that they have handled coarse paper. At present only the San Francisco office of the company is selling coarse paper, but Mr. Reynolds says the Los Angeles branch may get into this activity also.

C. H. BECKWITH

—manager of the Pacific Coast Division of Carter, Rice & Co., paper jobbers, is receiving congratulations and best wishes on his coming wedding Nov. 13 to Miss Bertha Mae Adam, daughter of Mr. and Mrs. James G. Adam of San Jose, Calif. Mr. Beckwith and his bride plan to reside in San Francisco, where he is located.

"Business seems to be marking time," Mr. Beckwith said early in November, "either for our wedding or for the Presidential election, I don't know which."

E. B. SKINNER

—San Francisco, mill representative of the Martin Cantine Co., reports that the trade is giving a good reception to the company's new "Inner-marked" coated paper, a coated paper bearing a water mark. Mr. Skinner says this is the first time coated paper has been given a water mark successfully.

The Martin Cantine Co. has issued an attractive booklet on this new paper and says the product is entirely new and revolutionary. The General Paper Co. is handling the line in California and W. B. Reynolds of that firm predicts it will be a successful line.

RECENT VISITORS

—at the office of the Doane Paper Co. in San Francisco included:

S. Whiting, Los Angeles representative of the Inland Empire Paper Co., Milwood, Wash.

William Patten of the Patten Paper Co. of Honolulu, T. H., who is in the states on a business and fishing trip.

Louis Gailer, mill representative of the Whiting-Plover Paper Co. of Stevens Point, Wisconsin. Mr. Gailer's headquarters are in New York.

NEWSPRINT QUOTAS

—have been established in France after discussions between French newsprint interests and foreign mills selling newsprint in France. An agreement was reached on the quota principle and a decree published in the "Journal Officiel" of September 29 states that the benefit of reduced tariff rates on newsprint paper and paper for periodicals can be granted to shipments imported after publication of present decree only by virtue of import licenses delivered by the central customs office, after the advice of the newsprint paper commission.

A decision follows the decree outlining the method of filing applications for import licenses. Import licenses to be valid from January 1 to December 31, 1933, will be delivered for an amount up to 66,000 metric tons (metric ton equals 2,205 pounds), divided as follows: Germany 19,000 tons, Norway 13,787 tons, Sweden 11,834 tons, Finland 10,025 tons, the Netherlands 5,203 tons, and other countries 44 tons. No special provision is made for the United States, which is included amongst the classification of "other countries."

NEWS PRINT PRICES

—were not stabilized in October. Albert H. Wiggin, plenipotentiary of Chase National Bank, also on executive and finance committee of Graustein's International Paper, journeyed to Montreal, denied any huffy ending of conferences there, denied participation in any price war. Meanwhile, reports were out that I. P. had signed contract with nine Canadian newspapers for print delivered at \$39.50, taking the business away from Canadian mills.

C. S. SHELTON

—formerly in the paper business at Paducah, Ky., and later with the Rhinelander Paper Co., has set up an establishment at 577 18th St., Oakland, to produce waterproofed papers under his "Dux-Bak" process. S. Montague is associated with him. Mr. Shelton says his plant will use Western papers. His market will be with railroads, construction firms and others who need writing papers for out-of-door work.

DON'T BE FIXED

—in your ideas on book paper, admonishes a new attractive broadside recently issued by the Everett Pulp & Paper Company, pioneer West Coast manufacturers of book and other fine papers. "So that the printer may profit at all times from the newest developments in the paper-making art," the broadside proclaims, "the quality of Everett m.f. book is constantly being improved."

TALKING BETTER

—back there," says D. L. Maxwell of the Tissue Co. on his recent return to San Francisco from a visit to his company's factory at Saugerties, N. Y.

"Nothing to rave about yet," he adds, "but things are picking up. A mill is opening here and there and, while operations are small, it all means that men are going back to work."

RAYON PULP

—1,000 tons of it, was loaded aboard the Japanese N. Y. K. liner, Hikawa Maru, at Tacoma, Washington, last month just before the trans-Pacific greyhound sailed for Nippon on October 28. Movement of rayon pulp from the Tacoma port has been quite steady and in fair volume, both to the Orient and to the East Coast.

POMONA MILL WIDENS VARIETIES

AFTER HAVING SPECIALIZED for many years in the manufacture of citrus and deciduous fruit wrapping paper, and tissue paper, the California Fruit Wrapping Mills at Pomona, Calif., have branched out into broader fields, and are now in production on several new lines of wrapping papers.

Speaking of the new development, Eric Fernstrom, general manager of the company, recently said, "We are starting out to manufacture butchers', grocers' and bakers', sulphite wrapping paper, a kraft wrapping paper and a bleached drug bond. We are doing it in a small, modest way, to increase our volume of business and to diversify our lines.

"Through a few refinements we have speeded up our machines materially, which gives us time and capacity to manufacture these new products.

"Already we have found quite a distribution of the new lines in Southern California. Some sales have been made in central California and around San Francisco, and we are now working on making jobbing connections all along the Pacific Coast."

Fruit wraps are of course the main source of business for the company. They have long-term contracts with the California Fruit Growers Exchange and other prominent fruit growers' organizations in California and Arizona. Citrus paper and other fruit wraps are also shipped into Florida, Texas and other southwestern states. In addition, they enjoy quite a sizeable portion of the deciduous fruit wrapping business in California, Oregon and Washington.

Officials of the company are pleased with the quality of the new wrapping papers being produced, it being in line with the high standards attained in the citrus wrapping paper. Of the latter, Mr. Fernstrom said, "All of the present qualities of citrus wrapping paper now being used by every packing house on the Pacific Coast, originated at the Pomona plant, and the same principles of manufacture have been adopted by other mills. The paper is characterized by its high transparency, its softness and its remarkable tensile strength which makes it practically split-proof, reducing the waste in packing houses to a minimum."

The mill operates its own printing department with color presses, etc. for printing its papers before delivery, when desired.

Within the last several months a large new warehouse has been built for storing the finished product. It is 175 feet by 60 feet and, constructed of concrete blocks, with an insulated roof, maintains an even interior temperature which is highly desirable in storing fruit wraps.

Adjoining the warehouse a modern repair shop 51 by 60 feet has been built, equipped to take care of practically all repair work required on the plant's machines. Another new structure is a large warehouse roof built over the storage space for the pulp, to protect it from sun and rain.

The setting of the mill, amid extensive orchards of fruit and nut trees, is in pleasing contrast to the view afforded at many other Coast paper plants. The mill itself presents an attractive picture of landscaping, with palm trees, lawns and flowers abundant on the property.

Despite widespread business complaints, officials of the company state that the mill has experienced good business this year, that they are well satisfied with the volume of business, and that they are most confident for the future.

PACIFIC COAST PAPER MILLS

—agency office in Los Angeles, operated by S. G. Wilson and Louis Wanka, is now handling the new lines of the California Fruit Wrapping Mills at Pomona, which includes growers', butchers' and bakers' sulphite paper and drug bond. They will not, however, handle the citrus fruit wrapping paper line.

Their main lines are of course toilet tissues, and the paper napkin line of the Hoberg Paper & Fiber Co. The price situation on roll toilet paper in Southern California is demoralized, but cabinet paper is holding firm. Volume is holding well and collections are showing an improvement.

PRICES

—at the end of October were still very unsatisfactory to producers. The trend was still generally downward. No particularly encouraging factors were visible. Chaos in the news print industry cast the shadow of further disturbances in other paper grades as marginal producers of news are forced to seek means of survival by shifting type of production, thereby putting new pressure on prices over a wider area.

Openly quoted prices at the end of October were as follows (with concessions below these points conceded):

	1932	YEAR AGO
WOOD PULP (ex-dock, New York, dollars per ton of 2000 lbs.)		
Prime bleached sulphite	40 to 50	48 to 70
Prime strong unbleached sulphite ..	28 to 33	35 to 43
Prime Swedish kraft	27 to 32	30 to 35
Groundwood (wet)	16 to 17	24 to 26
PAPER (delivered New York, dol- lars per ton of 2000 lbs.)		
News print, contract, rolls	45	57
Kraft, Southern	53	55
Test liner, standard 85 test	26.50	32.50 to 35

OLYMPIC FOREST

—Products Co., 175-ton bleached sulphite pulp mill at Port Angeles, Washington, started up again on October 17 and will continue to run for a time at capacity on orders. No inventories are being built up. The mill is one of the newest on the Pacific Coast.

B. C. PULP & PAPER CO.

—has decided to have both its mills, shut down early last summer, in operation again during the winter months.

The Woodfibre plant was closed down in May and re-opened October 1. At that time it was considered doubtful whether the mill would be continued in production for more than a month, but the company has decided to keep running. The Port Alice mill will be re-opened early in December, according to present plans announced by President Lawrence W. Killam.

New orders from Japan and continuance of business in fair volume from the Atlantic seaboard and the Middle West have justified the company in ordering resumption of work.

"This action doesn't mean that there has been a sudden improvement in the pulp business," said Mr. Killam. "We have been selling from stored stock since May and haven't cleaned this out yet, but we are anxious to provide employment through the winter for our men and are taking the chance that business will have recovered substantially by the turn of the year, when we will be in a position to share in the upturn."

S · A · F · E · T · Y +

+

be careful — first, last, always

• • •

Questions on SAFETY Work

In what direct ways do personal injury accidents affect operating costs?

Until recently, industrial management considered the cost of accidents simply in terms of money paid as a direct result of personal injuries. Prior to the enactment of Compensation Laws, these expenses represented judgments against the company, resulting from accident claims. In some instances, organizations voluntarily paid injured employees during disability periods or assisted families of workers who had been injured fatally. According to present Compensation Laws, employers must compensate injured workers according to predetermined schedules and must provide competent medical attention. The expenses involved or the insurance premiums paid are considered the direct costs of accidents.

From a humane viewpoint, why should a company be interested in preventing injury or death?

Workmen's Compensation Laws guarantee some income during certain periods of disability resulting from industrial accidents, and provide for necessary medical expenses. They can in no way compensate, however, for the personal suffering, permanent disability or death of a worker, nor prevent or even compensate for the human suffering of an employee's family, reduced in circumstances because of his accidental maiming or loss. Many instances exist where an accident to the head of a family has changed its entire future. Frequent and serious accidents have affected the morale of workers, because they become afraid of their work, or have caused them to leave at the first opportunity to accept safer employment. In some instances, employees, through fear or out of respect for their injured fellow workers, have refused to return to work for several days following a serious or fatal accident.

PULP AND PAPER MILLS IN THE STATE OF WASHINGTON
Statement of Accident Experience for September, 1932

Company—	Hours Worked	Total Accidents	Frequency Rate	Days Lost	Severity Rate	Standing
Pacific Straw Paper & Board Co., Longview	13,846	0	0	0	0	1
Washington Pulp & Paper Corp., Port Angeles	22,619	0	0	18	.796	2
Weyerhaeuser Timber Co., Longview	31,691	0	0	122	3.849	3
Crown Willamette Paper Co., Camas	200,903	2	9.9	102	.508	4
Columbia River Paper Mills, Vancouver	44,771	1	22.3	9	.201	5
Inland Empire Paper Co., Millwood	39,447	1	25.3	53	1.344	6
Fibreboard Products Inc., Sumner	26,633	1	37.5	10	.375	7
Everett Pulp & Paper Co., Everett	61,720	3	48.6	13	.211	8
Longview Fibre Co., Longview	82,189	4	48.7	60	.730	9
National Paper Products Co., Port Townsend	60,050	3	50.0	34	.566	10
Fibreboard Products Inc., Port Angeles	19,328	1	51.7	25	1.293	11
Rainier Pulp & Paper Co., Shelton	49,893	3	60.1	53	1.062	12
Grays Harbor Pulp & Paper Co., Hoquiam	41,678	3	72.0	51	1.224	13
Puget Sound Pulp & Timber Co., Everett	49,273	3	74.5	23	.571	14
Puget Sound Pulp & Timber Co., Bellingham	26,872	3	111.6	23	.856	15

The following mill did not report: Pacific Coast Paper Mills. The following mills were not in operation: Everett Pulp & Paper Co. (West Tacoma Plant); Tumwater Paper Mills, St. Regis Kraft Co., Puget Sound Pulp & Timber Co., Anacortes; Shaffer Box Co.

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DU PONT Halopont colors are particularly suitable for the production of white shades on all papers, from book and magazine to bond and writing. They are unequalled for glassine shades, as they are not dulled in super-calendering.

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A medium blue suitable for the greener shades of white.

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Suitable for the redder shades and may be used in combination

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GERMANY'S LARGEST

—pulp producer, Zellstoffabrik Waldhof, with a capacity of 320,000 tons of pulp and 90,000 tons (metric tons) of paper annually, reported a loss of 386,000 marks on 1931 operations. Dividends were passed. Company's losses are traceable directly to the decline in chemical pulp production in 1931 and falling prices. Paper production was well maintained. Brisk sales of ethyl alcohol produced from sulphite liquors and the high rate of production of sulphite pulp for rayon manufacture helped offset the severe losses in general wood pulp sales.

PRODUCTION OF PAPER

—in July, 1932, according to identical mill reports to the statistical department of the American Paper and Pulp Association, was approximately 15% below the level of the corresponding seven months of last year and inventories were 5% smaller than a year ago. All major grades showed decreases. Production was in fairly close balance with demand in most grades as evidenced by the fact that almost all stocks were below last year's level.

For the first seven months of 1932 the production of wood pulp was approximately 16% below the level of the first seven months of 1931, according to identical mill reports. Both the amount of pulp consumed by producing mills and the amount shipped to the open market showed substantial decreases from a year ago, the former being 14% below the level of the first seven months of 1931 and the latter about 22% less. Shipments of soda pulp to the open market were 41% smaller than during the seven months of 1931, while shipments of news grade sulphite and groundwood diminished 24% and 36% respectively. Shipments of bleached sulphite to the open market were 35% smaller. Kraft pulp shipments to the open market were 1% smaller than during the seven months of 1931, while the amount consumed by producing mills was 20% less than during the first seven months of 1931.

At the end of July, stocks of pulp on hand at pro-

ducing mills were below the level of a year ago in the case of groundwood, bleached sulphite, kraft and soda pulp. All the other grades showed increases in inventories.

Report of Paper Operations in Identical Mills for the Month of July, 1932

Grade	Production Tons	Shipments Tons	Stocks on Hand End of Month— Tons
Newsprint	74,502	76,857	33,369
Book Uncoated	49,647	51,646	42,253
Paperboard	113,465	114,487	59,365
Wrapping	29,640	30,384	40,030
Bag	10,076	9,990	5,909
Writing, etc.	17,454	18,838	41,451
Tissue	5,214	5,902	6,543
Hanging	2,003	2,033	4,865
Building	3,194	3,481	3,606
Other grades	11,647	12,922	16,277
Total All Grades, July, 1932	316,842	326,540	253,668
Total All Grades 7 Mos. 1932	2,680,821	2,689,745	253,668
Total All Grades 7 Mos. 1931	3,148,756	3,149,478	266,740

Report of Wood Pulp Operations in Identical Mills for the Month of July, 1932

Grade	Production Tons	Used During Month, Tons	Shipped During Month, Tons	Stocks on Hand End of Month, Tons
Groundwood	47,454	51,328	1,418	62,250
Sulphite, News Grade	20,047	18,653	1,436	7,739
Sulphite, Bleached	13,740	13,586	1,052	2,374
Sulphite, Easy Bleaching	1,185	1,152	22	1,211
Sulphite, Mitscherlich	4,249	1,866	2,528	2,388
Kraft Pulp	20,064	15,321	4,648	3,687
Soda Pulp	10,507	9,002	1,837	2,470
Other Grades	279	220	48	174
Total All Grades July, 1932	117,525	111,128	12,989	82,293
Total All Grades 7 Mos. 1932	1,073,898	977,130	90,424	82,293
Total All Grades 7 Mos. 1931	1,274,670	1,141,103	115,464	87,235

IMPORTS OF PULP WOOD AND WOOD PULP INTO THE UNITED STATES BY COUNTRIES

SEPTEMBER, 1932

Compiled by the U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce
(Figures Subject to Revision.)

Countries—	PULP WOOD				WOOD PULP			
	Rough		Peeled		Rough		Peeled	
	Spruce Cords	Other Dollars	Spruce Cords	Other Dollars	Spruce Cords	Other Dollars	Spruce Cords	Other Dollars
Sov. Rus. in Eur.	12,306	111,500	12,705	136,575	15	65	15	65
Canada	12,306	111,500	33,053	509,170	4,629	25,901	4,629	25,901
Total	12,306	111,500	65,758	641,745	15	65	15	65

Total Imports of Pulpwood, September, 1932—82,708 Cords; \$779,211.

COUNTRIES—	Mechanically Unbleached		Ground Bleached		Chemical Unbleached Sulphite		Chemical Bleached Sulphite		Chemical Unbleached Sulphate		Chemical Bleached Sulphate		Soda Pulp, Unbleached and Bleached	
	Tons	Dollars	Tons	Dollars	Tons	Dollars	Tons	Dollars	Tons	Dollars	Tons	Dollars	Tons	Dollars
Austria	26	585	73	2,886	455	12,618	1,248	41,234	1,185	22,775	808	14,565	10,480	349,659
Czechoslovakia	297	7,670	3,030	107,943	1,433	63,979	985	31,417	156	4,820	1,185	22,775	10,480	349,659
Estonia	1,185	22,775	808	14,565	10,480	349,659	1,528	68,320	985	31,417	156	4,820	1,185	22,775
Finland	274	4,276	502	8,602	2,093	64,649	2,898	116,461	444	11,904	27	1,086	9,921	307,601
Germany	772	10,629	3,648	123,395	11,145	399,143	2,022	106,826	1,548	141,298	83	3,234	12,412	238,349
Latvia	274	4,276	502	8,602	2,093	64,649	2,898	116,461	444	11,904	27	1,086	9,921	307,601
Norway	772	10,629	3,648	123,395	11,145	399,143	2,022	106,826	1,548	141,298	83	3,234	12,412	238,349
Sweden	12,412	238,349	30,069	977,191	21,353	1,013,431	16,342	539,861	1,881	151,960	83	3,234	12,412	238,349
Canada	12,412	238,349	30,069	977,191	21,353	1,013,431	16,342	539,861	1,881	151,960	83	3,234	12,412	238,349
Total	14,643	276,029	1,336	23,752	30,069	977,191	21,353	1,013,431	16,342	539,861	1,881	151,960	83	3,234

Total Imports of Wood Pulp, All Grades, September, 1932—85,707 Tons; \$2,985,458.

NEWS PRINT PRODUCTION

—in Canada during September, 1932, amounted to 150,691 tons and shipments of 152,633 tons, according to statistics of the News Print Service Bureau. Production in the United States was 70,621 tons and shipments 73,234 tons, making a total United States and Canadian news print production of 221,312 tons and shipments of 225,867 tons. During September, 21,532 tons of news print were made in Newfoundland and 1,052 tons in Mexico, so that the total North American production for the month amounted to 243,896 tons.

The Canadian mills produced 236,590 tons less in the first nine months of 1932 than in the first nine months of 1931, which was a decrease of 14%. The output in the United States was 101,886 tons or 12% less than for the first nine months of 1931, in Newfoundland 11,604 tons or 5% less, and in Mexico 1,993 tons less, making a North American decrease of 352,073 tons or 13%.

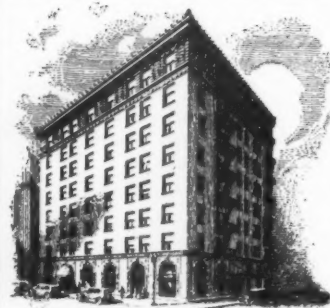
Stocks of news print paper at Canadian mills totalled 48,062 tons at the end of September and at United States mills 33,095 tons, giving a combined total of 81,157 tons compared with 85,712 tons on August 31.

North American Production					
	Canada	United States	Newfoundland	Mexico	Total
1932—September	150,691	70,621	21,532	1,052	243,896
Nine Mos.	1,451,168	770,533	208,264	9,739	2,439,704
1931—Nine Mos.	1,687,758	872,419	219,868	11,732	2,791,777
1930—Nine Mos.	1,902,056	985,142	214,008	10,667	3,111,873
1929—Nine Mos.	1,993,881	1,038,748	188,385	14,024	3,235,038
1928—Nine Mos.	1,732,563	1,047,602	170,726	12,185	2,963,076
1927—Nine Mos.	1,519,049	1,135,696	150,385	10,778	2,815,908
1926—Nine Mos.	1,380,722	1,259,506	133,590	9,572	2,783,390
1925—Nine Mos.	1,115,232	1,127,436	59,381	9,502	2,311,551

Japanese Paper Production and Sales
August, 1932 (in Pounds)

	Production	Sales
Printing Paper (high grade)	11,733,530	9,868,421
Printing Paper	9,644,358	9,327,889
Drawing Paper	1,379,911	1,621,934
Simili Paper	8,511,784	8,208,856
Art Paper	1,096,400	1,244,715
News Paper	46,734,215	46,698,709
Sulphite Paper	4,921,566	5,852,113
Colored Paper	1,126,687	1,201,767
Wrapping Paper	12,415,633	14,123,412
Japanese Paper	1,339,637	1,287,031
Board Paper	6,857,632	4,203,304
Sundries	3,672,578	4,621,747
Total	109,433,931	108,259,898

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Splendid garage facilities.

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There are all kinds of paper mills and all kinds of paper machines in them. There are all sorts of operating conditions and all sorts of felting needs.

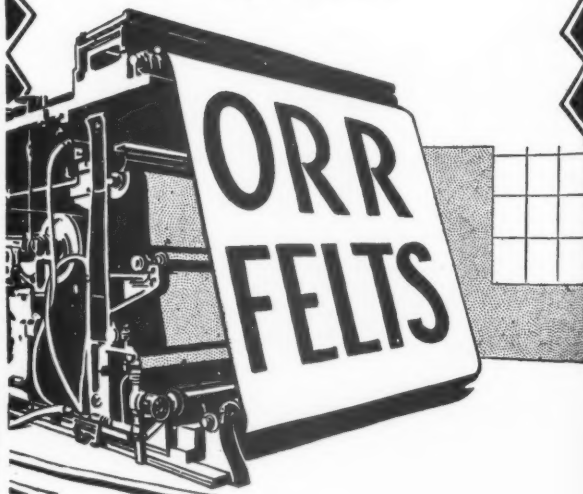
We weave fine felts with which to serve those many and varied felting requirements, and can send you a felt adapted to any condition you may describe.

Nor are we ever hesitant about placing Orrs in competition with other felts to determine which leads in water removal qualities, or in ability to stand hard wear.

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PIQUA, OHIO



STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912

Of Pacific Pulp & Paper Industry, published monthly at Seattle, Washington, for October 1, 1932.

State of Washington, County of King,—ss.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Lawrence K. Smith, who having been duly sworn according to law, deposes and says that he is the business manager of the Pacific Pulp & Paper Industry, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, Consolidated Publishing Co., 71 Columbia St., Seattle, Wash.
Editor, Lloyd E. Thorpe, 71 Columbia St., Seattle, Wash.

Managing editor (none).

Business manager, Lawrence K. Smith, 71 Columbia St., Seattle, Wash.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)

Consolidated Publishing Co., 71 Columbia St., Seattle, Wash.

Miller Freeman, Daniel L. Pratt, Lawrence K. Smith, W. E. Crosby, G. W. Cain, all of 71 Columbia St., Seattle, Wash.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds or other securities than as so stated by him.

LAWRENCE K. SMITH, Business Manager.

Sworn to and subscribed before me this 5th day of October, 1932.

(Seal)

RALPH H. MOULTON.

(My commission expires June 24, 1936.)

ROBERT B. WOLF

—manager, Weyerhaeuser Timber Co., Pulp Division, Longview, Washington, has been named trustee of the board of the Institute of Paper Chemistry, Appleton, Wisconsin.

At semi-annual meeting of the board in October D. K. Brown, general manager of the Neenah Paper Company, and M. L. Alexander, president, Nekoosa-Edwards Paper Company, were reelected.

The following officers were reelected: Ernst Mahler, Neenah, president; D. Clark Everest, Wausau, vice-president; Dr. Henry Merritt Wriston, president of Lawrence, secretary and director; R. J. Watts, treasurer; Westbrook Steele, executive secretary; and Dr. Otto Kress, technical director. Other trustees are: Hugh Strange, Neenah, and Monroe A. Wertheimer, Kaukauna.

WASTE PAPER PRICES

—are controlled by a small group, backed by large paperboard manufacturing interests, so it is contended by other board mills. These latter have protested to the Federal Trade Commission. Hearings in Chicago in October put eight large board mills on defense, together with A. F. Meisterheim, common purchasing agent. Under stout cross-examination the defense contended that supply and demand only ruled the market. To the contrary, the Federal Trade Commission seeks to find evidence of arbitrarily controlling waste paper prices in Chicago market.

AMERICAN WRITING

—Paper Company showed a net loss of \$435,000 after taxes and charges compared with a net loss of \$130,000 for first nine months of 1922 and 1931 respectively.

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